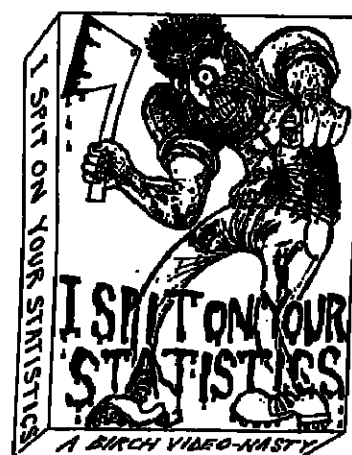


In the midst of a bitter and apparently unending coal dispute and with renewed fears of radiation disaster, the **ALTERNATIVE ENERGY** lobby has gained a new impetus. Jon Turney visits Reading University and looks at a new course in alternatives to existing power sources (page 9)



Panic or perspective? The controversy over **VIDEO NASTIES** has been a curious mixture of moral panic, censorship fears and artistic elitism. Mallory Wober attempts to clear away the surrounding fog and to get at the real perils of violent pornography (page 11)

Education is still a snakes and ladders business. Richard Ives examines the findings of the **NATIONAL CHILD DEVELOPMENT STUDY** about the educational board game (page 13)

ARTS PAGE: beyond the Festival... Bill Forsyth's long-awaited new film *Comfort and Joy* reviewed by Kenny Mathieson... what was the "Glasgow Style"?... a new spring arts festival for Edinburgh? (page 13)

Does YUGOSLAV SOCIALISM represent a viable alternative to both state socialism and the free market? Peter Abell reviews Harold Lydall's study of a successful system of state managed market socialism (page 15)

Home News	1-8
Union view (AUT)	2
Don's Diary (Noel Witta)	4
Party Line (Jack Straw)	6
Overseas news	7-8
Articles	9-13
Column (Bernard Crick)	12
Arts page	14
Books	15-18
Noticeboard	19
Classified advertising	20-23

NEXT WEEK

Nazi persecution and the westward migration.
J.P. Kenyon on Lawrence Stone
Student unions, ultra vires and the miners

© TIMES NEWSPAPERS LIMITED, 1984
Published by Times Newspapers Ltd., P.O. Box 7, 200 Gray's Inn Road, London WC1X 8ET, England.
Typesetting by Computer Graphics Ltd, 37-41 Compton St., London EC1A 3JL, and printing by Northampton Mercury Co. Ltd, Upper Mount Street, Northampton NN1 3JR, Friday, August 31, 1984. Registered as a newspaper at the Post Office. ISSN 0419-3929.

Bottom drawer battle

The most important changes in public policy often creep up on us unawares. They are not the product of grand announcements - set-piece ministerial speeches, White Papers, royal commissions and the rest. Even their initiators are sometimes only dimly aware of their significance. Instead, these changes are produced by a gradual accumulation of detailed decisions and subtle shifts in opinion, within Government and among the wider public. At a certain point, which often can only be identified in retrospect, this gradual accumulation of small changes reaches a critical mass. Overnight it seems a big change has taken place and we find ourselves in a new environment.

Something like this seems to have happened to higher education. Two years ago universities, polytechnics and colleges seemed to be plunging into ever deeper crisis. Universities were in the first stage of a contraction without a clear end. Some people wondered if the universities which had been hardest hit by the University Grants Committee's highly selective distribution of the 1981 cuts could survive at all. All universities seemed to face a new ice age in which widespread staff losses, budget squeezes and collapsing morale would decisively close off the avenues of hopeful development opened up in the previous 20 years. And far from there being any hope of any relaxation of the worst pressures, the immediate prospect seemed to be of a further tightening of the screw.

In the polytechnics and colleges it was just as bad. Any dim hopes which the more senior and successful polytechnics had entertained that there would eventually be a "levelling-up" of their budgets to match the universities were snuffed out by the 1981 university cuts. The planning of the non-university sector remained in a state of chaos without effective national coordination - but the establishment of a new National Advisory Body designed to reduce this chaos carried with it the threat that what happened to the universities in 1981 would be inflicted on the public sector in 1983 or 1984. The smaller and more vulnerable colleges of higher education waited shivering for the next round of closures which then seemed inevitable.

Two years later that picture has been transformed. Higher education's trou-

bles are far from over but there has been a decisive shift to optimism. This hopeful change has not come about as the result of any dramatic road-to-Damascus repentance by the Government but through the suggestive accumulation of small decisions and subtle shifts of opinion. The decisions are easy to identify. For the universities the "restructuring" (ie redundancy) fund, however ill-conceived and ill-understood, did relieve the most intense and dangerous financial pressures, while the "new blood" initiative, however rigid in its operation and instrumental in its bias, did hold out the promise that future academic development had not been entirely blocked. For the polytechnics and colleges the arrival of the NAB had the opposite effect to that which had been feared. In a remarkably short time it generated a formidable planning momentum in the public sector and established itself as a persuasive advocate of the polytechnics' and colleges' interests, but behaved as a most reluctant and fastidious rationalizer.

The shifts in opinion inevitably are more difficult to describe. Yet almost everyone senses that the worst and most negative pressures on higher education have been relaxed. The Government seems to have lost its appetite for cuts and more cuts. One reason for this is its whole strategy has shifted from cuts in public expenditure to produce short-term tax cuts to a strategy of privatization and broader industrial restructuring in which the emphasis naturally switches back to investment. In any case if the Government can look forward to billion-pound windfalls from selling off British Telecom why should it struggle to shave a few millions off the university grant or the advanced further education pool?

A second reason is that whether by accident or design Sir Keith Joseph has been sidetracked. Of course he is rightly preoccupied with the much larger issues of school reform and 16 to 19 education and training. But within the narrow frame of higher education policy he seems to have gone tilting at "bans" or rubbing down the cul-de-sac of abolishing tenure like some reincarnation of Don Quixote. A third, and perhaps more important, reason is simply that ministers have been persuaded to take a more positive view of higher education's prospects. The dis-

creet but decisive lobbying of bodies like the UGC and the Advisory Board for the Research Councils has put them on the defensive. Today they have almost been convinced that things got out of hand between 1980 and 1982, that the UGC was not bluffing when it warned of large-scale discommodities and that the acknowledged excellence of the system may have been put at risk by ill-considered and short-term cuts.

But the most decisive reason of all is that the crude scenario of the future locked in those bottom drawers in the Department of Education and Science and in the Treasury, higher education policy's "bottom line", is being rewritten. Since at least 1978 the DES and the Treasury have presumed that at some stage higher education because of the decline in the number of 18-year-olds would have to be subjected to an exercise in contraction similar to that made necessary by falling rolls in schools. There might be arguments about the timing and the intensity of this exercise and these arguments were certainly influenced by whether the Government was Labour or Conservative, but the integrity of this "falling rolls" scenario remained unchallenged.

Until recently, now this scenario is being challenged by the "Brave New IT World" scenario. This upstart which to some extent is being foisted on the DES (and the Treasury?) by the new alliance of industrial modernizers, the Department of Industry, the Manpower Services Commission, the National Economic Development Council, and similar agencies, insists that graduate supply rather than student demand should be the determinant of higher education policy. The modernizers are alarmed that if the "falling rolls" scenario is followed Britain will start producing fewer graduates in the very years in which a much larger output will be needed.

So the rationalizers with their "falling rolls" scenario and the modernizers with their "Brave New IT World" scenario are fighting a battle of the bottom drawer. Over the autumn ministers and civil servants in the DES will have to draft the green paper on the future of higher education which they have promised for the new year. This green paper will inevitably bear the scars of this crucial battle.

ET the Matsushita way

"... The intelligence of a handful of technocrats, however brilliant, is no longer enough. Only by drawing on the brain power of all its employees can a firm face up to the turbulence and constraints of today's environment. This is why our large companies give their employees three to four times more training than yours; this is why they foster within the firm such intensive exchange and communication; this is why they seek constantly every body's suggestions and why they demand from the educational system increasing numbers of graduates as well as bright and well-educated generalists."

This is what Mr K. Matsushita of Japan's Matsushita Electric Company told a group of visiting American managers about the Japanese approach to education and training. What he might have told a similar group of our managers about the contrast between Japanese and British practices in this all-important area where education, employment and industrial policy comes together, luckily we can leave to our masochistic imaginations.

Mr Matsushita's remarks are quoted in *Competence and Competition*, a report prepared by the Institute of Manpower Studies for the National Economic Development Council and the Manpower Services Commission and published this week. The report is a low-key, and perhaps for that very reason devastating, comparison between education and training in West Germany, the United States and Japan.

Of course international comparisons need to be handled carefully. Policies and practice that work well in Japan or even Germany cannot simply be transplanted into Britain. Japan has a history and culture that is quite apart from her North American and European economic rivals. What Mr Matsushita was describing was not simply a different approach to education and training but a different approach to life. Germany still enjoys a training system of almost Bismarckian stability in which vocational schools and industrial apprenticeships have formed an enduring partnership. In the United States, nearly everyone stays in high school until the age of 18 and substantial numbers are then enrolled in the world's most elaborate system of tertiary education.

So simple comparisons are naive. But more subtle comparisons may help to expose the weaknesses in our own system of education and training (ET in the language of this report). It is in this new perspective on our own practices rather than information about the practices of others which is the main value of *Competence and Competition*.

Three themes emerge. The first is the need to build a much stronger sense of partnership between industry - unions as well as management - and education. Too often industry seems to treat education as a rather unreliable subcontractor who never seems to produce its commodity, skilled labour, in the right quantity and quality. Too

often education seems to keep industry at arm's length by over-stressing the need to educate young people for life rather than simply train them for jobs.

The second is the need to be much clearer about our strategy. Should we move towards a more elaborate public system of education and training by trying to keep more young people in school and college, on the American or Japanese models? Or should we follow the Germans by building a stronger dual system in which colleges and industry accept equal responsibility for training? In crude terms should we adopt a statist or corporatist strategy, which may present problems for the Government because it pretends to believe in neither approach but in unreconstructed free enterprise? This is a particular dilemma for the MSC: is it to try to do the training job itself, or is better seen as a broker between industry and education? Its present role is still clouded by ambivalence on this crucial strategic choice.

The third is that we should aim at broad occupational competence as well as experience in a narrow range of skills. The report is clear that flexibility must be a key characteristic of the education and training that young people receive. It is spattered with phrases about the need for workers to perform multi-task operations, cross occupational boundaries, work in multi-occupational teams, work in integrated systems with a knowledge of their wider purpose, cope with unfamiliar circumstances. All things you can bet they do well in Matsushita!



Fifth Column

It is foolish to take over a column that has been written by Laurie Taylor because there is no way one can write. Readers of *The Times* are divided into those who read his column first (and sometimes nothing else) and those who find him so jejune and irritating that they are embarrassed at his being a professor and glad (they say) that they themselves are not. But I have always found Laurie Taylor entertaining and often very perceptive so I will start by paying a small tribute.

We both worked for the University of York and he still does (well, there are people who doubt that and at what a sabbatical year can mean) whereas I decided nearly 15 years ago to cross the famous binary divide and strike off into the jungle of advanced further education, with tendrils and poisonous plants and things that can trip you up when you are in a hurry. We met occasionally in the University of York and kept an eye on each other so as to know what was going on.

I was one of the first recruits to the new university and actually the first academic to turn up. Laurie came a little later, when the department of sociology was established. That episode was one of the sadder stories, not because the university took a dim view of sociology as Barbara Woolton does nowadays in fact the university was very keen indeed to promote the subject as one of its fashionable idols of economics, politics and sociology that dominated much of its early years. But sociology had an unhappy history. With one of those seemingly inevitable fronts they appointed irreconcilable personalities and the department was split down the middle, half of the staff trying to join another department and half staying loyal to the professor. Laurie was loyal and eventually emerged as professor himself to everyone's relief and some people's surprise.

We were recruited by Lord James, the first vice chancellor and the creator of the university, which has (of course) been the most successful of the new universities. James was reputed to be more interested in teaching than research and wanted to recruit good teachers. That did not stop him from recruiting some really outstanding scholars - not the same as researchers - but I don't think Laurie Taylor and I were two of those. He had been an actor before he became an academic and there are people who think he has not yet made the change.

In those happy informal days before the rise of the student state, students would report on who were good and bad teachers. Although neither of us would have come out top, we were certainly within the first five and I bow to Laurie as being a better teacher than me. Giving good lectures and acting have of course a lot in common and this must help to have had some training. Few academics have been professional actors but many have been involved in amateur dramatics at school or college. One of the lessons from that was being trained to speak clearly. For many of us that has been crucial to making the stage made up in universities for the lack of training in teaching methods. Some of the lectures I heard in Edinburgh were had to a point of total incomprehensibility and embarrassment. Not in ability, and embarrassment, not in promise not to imitate him or try to be funny except accidentally, of course.

Patrick Nutgens

The Times Higher Education Supplement

September 7, 1984 No 618 Price 60p

Dice were loaded against us, says union arbitrator

by Karen Gold and David Jobbins

Polytechnic and college teachers have secured a slender half per cent increase in the final offer made by their employers' local authorities as a result of this week's arbitration award.

The award, which was made by the arbitration panel's independent chairman, Professor Eric Armstrong, after the two other members failed to agree, for a 5.1 per cent increase made up of a 4.6 per cent across-the-board rise of 4.6 per cent and an extra £330 for 12,500 lecturers at the top of the Lecturer 1 scale. For them the increase will be worth almost 8 per cent.

The employers' final offer had been for an across-the-board increase of 4 per cent plus £330 for the same lecturers. There had been fears in the National Association of Teachers in Further and Higher Education that this increase might be lost in the arbitration award.

College lecturers were prevented from winning a pay increase much above 4.5 per cent because of the number of public sector pay settlements already at that level, the dissenting member of the arbitration team has said.

The dissenting voice on the Arbitration Conciliation and Arbitration Service was Mr Bill Kendall, the union representative on the team and former secretary general of the Council of Civil Service Unions.

The further education lecturers were a series of disadvantages in the arbitration, Mr Kendall said. Apart from the argument that other public sector groups had settled for 4.5 per cent, "there was this enormous difficulty that a) the local authorities alleged they could not pay, b) they could not raise the cash in the way they could in the past, and c) the Government had made it clear that whatever situation decided there was no extra cash coming."

In addition the primary and secondary teachers' negotiations had taken place two days before those of further education, at which the management arguments had already been put to the

chairman. Since both the chairman and management side kept the same representatives, but the union representatives changed between schools and further education, the lecturers were at an additional disadvantage.

Mr Kendall had opposed making the award at 4.6 per cent and the refusal of the arbitrators to accept the union's case for an automatic transfer of staff from the Lecturer 1 to Lecturer 2 scale.

The Association of University Teachers said that the award should at least be matched for the universities if the gap in salaries was not to be further narrowed.

The general secretary, Ms Diann Warwick, said: "The award to further education teachers shows the inadequacies of the offer made by the vice chancellors and we will go back to ask for at least similar treatment."

Mr Peter Dawson, general secretary of NUTHE, said: "Our members will be bitterly disappointed at the failure to meet the needs of the service and to restore teachers to their former living standards."

After years of decline the independent arbitration has served only to produce an award which marks time for one year.

Local education authority leaders were due to ask Sir Keith Joseph, Secretary of State for Education and Science, what he was going to do about the recommendations when they met him this week. Sir Keith can either accept the award or ask Parliament to over-ride it.

Mr John Pearman, chairman of the Burnham further education management panel and a member of the CLEA/NAB delegation, said that he hoped Sir Keith would endorse the teachers' award as soon as possible so that the Burnham committee could meet to ratify it this month.

He hoped to begin discussions with NUTHE on pay and conditions restructuring as soon as possible.

Tip research balance, urge unions

by David Jobbins

Trade unions are close to agreement on a new national strategy for research and development designed to hasten economic recovery and tip the balance from military to civil research underpinning the universities and polytechnics.

The policy document drawn up by the TUC in consultation with affiliated unions with an interest in research in the private and public sectors is expected to be published shortly. It will recommend that Britain's international competitiveness is being hampered by too much government spending on defence research and will recommend a substantial increase in civil activity.

The TUC's initiative stems from a report last year's Congress in which the Association of University Teachers urged a transfer of spending from military research to civil projects in a bid to restore the strength of Britain's research base.

continued on page 3

Jarratt efficiency tenders invited

by Ngaio Crequer

Seven management consultant firms have been invited to tender for the efficiency studies to be undertaken in six universities, which will begin next month.

The efficiency studies steering committee, chaired by Sir Alex Jarratt, chairman of Reed International and chancellor of Birmingham University, has also decided to carry out a separate study of its own into how universities provide national bodies with information. It will look at what kind of information is required, and how universities coordinate its supply and store it internally.

The efficiency studies are being undertaken in the universities of Edinburgh, Essex, Loughborough, Nottingham, Sheffield and University College, London.

Each study will examine the effectiveness of the general management structure and administrative systems including the decision processes, management information systems, authority and responsibility for and monitoring of the use of resources.

In addition there will be a special study at each institution: financial management at Edinburgh and UCL; purchasing, including the purchase of scientific equipment and its maintenance at Essex and Sheffield; and maintenance and servicing of building and plant minor works and the allocation and use of space at Loughborough and Nottingham.

Originally 16 consultancy firms submitted claims to carry out the work. The Jarratt committee was advised by the Management Consultants Association in trimming the list.

The firms invited to tender for financial management are Deloitte Haskins and Sells Management Consultants, Arthur Anderson & Co, and Coopers Lybrand Associates Ltd.

For purchasing, firms tendering will be Inbroun Management Consultants Ltd, Price Waterhouse, Associates and Coopers & Lybrand Associates Ltd. For maintenance and minor works they are Ernst Whinney, Peat, Marwick, Mitchell & Co, and Deloitte Haskins and Sells Management Consultants.

One firm will be commissioned at each university and contracts are likely to be awarded early in October. Each study will be under the direction of a university staff member, in one case a senior academic, and in all others a senior member of the registrar's staff.

A spokesman for the Jarratt committee said: "The function of the studies is not to criticize policy but to scrutinize performance and how far structures and systems aid or hinder optimum performance."

"The studies will not extend to issues of academic judgment nor be concerned with the academic policies, practices or methods of the institutions."

The steering committee intends to have regular meetings with study officers and vice chancellors of the six universities. The reports are expected to take some 90 days and will go to the steering committee.

This will then report to the Committee of Vice Chancellors and Principals and the University Grants Committee, with comments and recommendations as appropriate.



Signing on: athlete David Moorcroft signs autographs after winning the 3,000 metres at the Inaugural Coventry Games last weekend. Over 4,000 people came to watch the games at the city's new £430,000 athletics ground adjoining the Warwick University campus. The site and £100,000 of the building costs came from the university.

Women beat men in jobs race

by Paul Flather

Women graduates from universities appear to be far better than men at finding jobs, though graduate unemployment as a whole is falling, according to current vacancy trends and the latest statistics published this week by the University Grants Committee.

The UGC statistics on first destination of graduates for 1982/83 show that the percentage believed still unemployed last Christmas was 11.6, compared with a peak of 13.5 per cent the previous Christmas, reversing the trend for the first time in six years, despite increasing numbers of total graduates.

An analysis of vacancy lists up to May this year carried out by the Central Services Unit in Manchester, which supplies job information to graduates and universities throughout the country, showed a 20 per cent increase on 1982/83.

Mr Brian Pitt, director of the CSU, said this week that lists for 1984/85 were showing an even greater improvement, with vacancies up by 30 per cent on 1983/84.

The UGC statistics show that six months after graduating last year, 12.3 per cent of men were believed jobless compared with just 10.5 per cent of women.

Careers advisers, however, remain slightly baffled as more women still qualify in non-science fields, where employment prospects are much slimmer. The statistics show great differences in subject areas, with 1 per cent of graduates in medicine, dentistry, and health unemployed, compared with 8 per cent of engineering and technology graduates, and 16 per cent of humanities graduates.

The subjects where unemployment rates continue to remain high include biology (20 per cent), botany (19 per cent), zoology (23 per cent), geology (24 per cent), government and public administration (24 per cent), sociology (20 per cent) archaeology (21 per cent) and philosophy (25 per cent).

The number of graduates successfully entering industry and commerce last year compared to 1982 rose significantly, with the largest rises in engineering and allied industries (21 per cent), banking, insurance and finance (10 per cent) and other commerce (13 per cent).

University Statistics 1982/83, volume two, First Destination of University Graduates, price £9.75 from the Universities' Statistical Record, PO Box 130 Cheltenham, GL50 1JW.

Salford compiles private IT programme

by Jon Turney
Science Correspondent

Salford University has responded to the recent idea for a private information technology institute and drawn up detailed plans for the Department of Trade and Industry showing how the public sector can do the job.

The key to the plans, which Salford's vice chancellor Professor John Ashworth was to discuss with the information technology minister Mr Kenneth Baker this week, is a link with the National Computing Centre.

Professor Ashworth is also chairman of the Manchester-based NCC which

has extensive training programmes in computer technology and software. The two centres believe NCC lecturers could be used at Salford to train 300 to 400 undergraduate IT students a year. But the university would need between £1m and £2m for capital equipment to cope with the new students.

The NCC is also discussing with member companies to see how many might be prepared to offer work experience for IT students studying on such a new course. This will help support Professor Ashworth's argument to the DTI that it is unnecessary to spend money on a new IT institute

when universities like Salford and Aston, which suffered in the 1981 cuts, have spare capacity.

The urgency of the need to boost information technology training was underlined this week by a committee of the National Economic Development Office, also chaired by Professor Ashworth. The Information Technology Economic Development Committee, which brings together industrialists, government officials and trades unionists, identified skill shortages as one of the key factors keeping Britain's growth in IT industries behind world pacesetters like the US and Japan.



A new look at the New Testament, 13

ETIC APPLICATIONS LIMITED
SUSSEX, ANDOVER, HANTS SP10 3JY
TELEX 477019

DON'S DIARY

MONDAY

The week of the external examiners' visit starts, inevitably, with a six-hour wait at Kuwait International Airport. Two of our five visitors from the United States and Britain are due tonight and a casual check of passenger manifests reveals that a third will be flying in from Cairo.

The tedium of waiting is relieved by the sight of crowds sprinting to the Pepsi stand as the dusk prayer call marks the end of the day's fast: for our examiners are due to arrive in the middle of the holy month of Ramadhan, when eating, drinking, and smoking are banned in public during daylight and all good Moslems fast from dawn until dusk.

As passengers drift towards us from the custom hall, which is obscured from our view by tinted glass so we cannot observe the ritual confiscation of illicit whisky bottles, eyes strain to distinguish American professors from old men dressed to resemble minor Old Testament prophets.

Our quarry captured, we whisk them, numb with jet lag, to the Holiday Inn, an astonishing building that combines a giant Roman atrium with the Hanging Gardens of Babylon.

TUESDAY

I awake to find brown sunlight streaming through the window. For the third successive day we are in the grip of the Tause, the local dust-storm. The air tastes terrible.

During Ramadhan, I prepare for work at my ease. Instead of the normal working hours of 7am to 2pm I have the luxury of a 8.30 to 1.30 day at the faculty. In common with the majority of the population, I will then sleep all afternoon and stay up half the night.

I have an agreeably quiet day in my office, which is as well since there are so many local students to tie up before the end of the month, when I take off on nine weeks' holiday. The relative peace also allows me to lock the door, so that my office is no longer a public place, and catch up with my e-mail.

With examinations in full swing, what problems I have to deal with require immediate resolution. As I conduct an examiner around the building, an invigilator hurries from an examination room and asks me to find him assistance, as he suspects some students are trying to cheat. Later in the morning, another lecturer complains to me that his students have written virtually identical answer papers.

WEDNESDAY

I live in a university apartment building in Salmiya, one of Kuwait City's outlying suburbs, a five-minute walk from the beach. Living in a block with 20 other young single westerners creates an atmosphere akin to that of a student hall of residence. Unfortunately, our presence sometimes attracts unwanted visitors, and Wednesday starts for me at 3.10am with a ring on the door-bell. Three young Arabs are standing on the landing, resplendent in flowing white gowns, known locally as *thubas*. They are looking for my next-door neighbour. Do I know where he is? At such times I wish the university gave new staff a course in Arabic swearing. After I have gone back to bed, they continue to hammer at my neighbour's door for another half-hour before driving into the night in their Chevy.

The morning's good news is that last night's flight from London bore the external examiner for our medical laboratory technology programme. The bad news is that one of our earlier arrivals is confined to the hotel for the day with an ailment politely known in the university as 'visiting professor's tummy'. There are further worries about another examiner who believes she is in Iran

and thinks that the illiterate Bedouin driver assigned to her is the faculty dean.

The morning is interrupted only by a practice drill with the air-raid sirens, which causes one course director, invigilating an exam, to admonish the students not to panic in a style frighteningly reminiscent of Corporal Jones in *Dad's Army*.

A reception at the consul's villa starts the evening. Conversation is rendered tedious by everyone out-bidding each other with wild scenarios for future escalation in the Gulf War. A dash across town takes me to a reception for the external examiner in physical therapy, which reflects the cosmopolitan nature of the faculty's staff. The 30 teachers now in the faculty encompass 11 nationalities from the British, most numerous with six representatives, to the lone St Vincentian and the one part-time Kuwaiti.

THURSDAY

Thursday is the first day of the weekend in Kuwait, but with a couple of exams being held and the long vacation so close, I choose to spend the morning in the faculty, attempting to perfect a budget programme on our new micro-computer. A proper understanding of computers is one of the biggest gaps in the background of British-trained administrators and I spend four frustrating hours watching the message "ERROR" flash onto the screen, whichever key I press.

FRIDAY

Holy Day. Friday prayers at the mid-point in Ramadhan, and the American limousines are triple-parked outside the mosques on Arabian Gulf Street as I drive back from a visit to the holy shrine of the university's expatriate staff, Kuwait Airways' headquarters. The dust-storm, now in its sixth day, is the most persistent in my two years in Kuwait and has ruined the chance of a last weekend on the beach before taking off on the summer vacation. The evening is spent composing vast chunks of the faculty's Annual Report. For all the differences between working in the UK and here, the most tedious parts of a faculty secretary's job, such as slaving over committee minutes, annual reports, and six-year development plans, remain constant.

SATURDAY

I try to work to find myself in the middle of the confusing game of musical offices. Wherever I work in education, office allocation is a more emotive issue than, say, academic freedom or maintaining standards. Fortunately there are no real losers here, since the faculty is housed in reasonably spacious premises on the seashore next to Kuwait's biggest port, in one of the university's four main campuses. Together they accommodate over 12,000 students in every major discipline, with our faculty a relative minnow with 190 students.

The evening's party, a Sri Lankan affair, is graced by the arrival, straight from the airport, of our fifth and final external examiner. She hails from Nashville and surprises us all by looking almost every inch like Dolly Parton.

SUNDAY

A quiet day, with most of the external examiners packed off to hospital visits. They return suitably impressed. Facilities and staffing in the state health services already compare favourably with western standards, and the ambitious Kuwait Health Plan 1982-2000 foresees the numbers of beds, doctors and paramedics increasing by at least 50 per cent by the end of the century. With an annual intake of 104 students, our faculty hardly dreads the manpower requirement.

For once, I forget to lock my office door while taking elevators, and when the vice-dean's secretary walks in without knocking I have to spit half an apple into the waste paper bin.

The evening is free from social events, but the week's hectic social whirl has unbalanced the faculty's radiologists, who arrive a day early at the medical technologists' dinner party.

Paul Probyn

The author is faculty secretary of the faculty of allied health sciences and nursing at Kuwait University.

Lecturers' pay review urged

by Karen Gold

A full review of further education teachers' pay and conditions should take place as quickly as possible, the arbitration report by panel chairman Professor Eric Armstrong says.

The three-man panel, which was unable to agree on what pay increase teachers should receive, was also unable to agree on the element of restructuring. The union side had requested an automatic transfer from the L1 to L1L1 scale.

Professor Armstrong said he considered "if one part of a complex pay structure is to be altered, it is best, for all parties, that any proposed changes be considered within the context of a full review of the total structure". Meanwhile he felt unable to increase the extra £330 for staff at the top of the L1 scale offered by the management side, he said.

The review should take place as soon as possible in order to maintain

the basic goodwill that obviously existed between the parties, he said - in implicit contrast to his comments about the evident tension between management and union sides in the primary and secondary teachers' arbitration, where he also had to give a ruling decision because the arbitrators could not agree.

The fact that teachers' pay had twice been the subject of public inquiries marked off teachers' pay negotiations from other groups "who had not been subjected to the same close, independent and evaluative scrutiny" the report says. But it falls short of saying they are a special case, only using the term "a distinct group".

Hence the 4.6 per cent decided by Professor Armstrong took into account all the arguments advanced by both sides, including increases in productivity, labour market changes, and the employers' ability to pay, but the report says - it would be totally fallacious for any link to be made between the level of the award and any particular factor.



Officials fail to win TUC seats

by David Jobbins

Higher education's two top union officials have each failed in their attempt to win a seat on the TUC general council.

Mr Peter Dawson, general secretary of the National Association of Teachers in Further and Higher Education came sixteenth and Ms Diana Warwick, his opposite number at the Association of University Teachers, was twenty-second in voting for the 11 places on the general council that are reserved for unions with fewer than 100,000 members.

Mr Dawson was 84,000 votes short of the 783,000 votes needed to be elected while Ms Warwick polled 355,000. The voting showed a shift in the right to the disadvantage of Mr Dawson whose name appeared on the left-wing "slate".

When he last stood for the general council, in 1981, he was on the right-wing slate for which Mr Roy Gifford, then general secretary of the TUC, was the main opponent. Mr Dawson's defeat was a blow to the right-wing "slate" and a boost to the left-wing "slate".

Japan seminars

Stirling University's centre for Japanese studies is to run orientation seminars for business people who will be working in Japan. A two-day seminar at Stirling will be followed by a two-day seminar at the Camellia Hall of Japan's most ancient Shinto shrine.

Women seek a higher place

by Paul Flather

Lucy Cavendish College, founded almost 20 years ago to give mature women a chance to study and research at Cambridge, is bidding to move up a grade on its way to becoming a fully-fledged university college.

Cambridge academics will decide next term whether the college, currently a university collegiate society, an informal and experimental rank, should become an approved foundation with formal, direct links with the rest of the university. The final move would be to become a college.

Lucy Cavendish currently has 14 graduates, and 30 undergraduates, the limit it is allowed. In recent years it has had a substantial increase in the number of applicants for each place, which college fellows say is clear evidence there is a strong and continuing demand from women over 25 to enter higher education.

The bid, first raised in 1980, has just been approved by the university's senate council and now goes before the Regent House, the dons' parliament,

for further consideration. Cambridge currently has only two all-women colleges, New Hall and Newnham.

The college has gradually grown from an initial 3,000 capital endowment and very humble lodgings, and is now based in three large Victorian houses standing in pleasant gardens. The first undergraduates arrived in 1972, and are now 20 teaching fellows and four research fellows.

The college has also launched a £1m appeal, which Dr Doris Thoday, the vice president, hopes will allow it to increase the pay of fellows. Currently they receive about half the average pay of Cambridge academics, making up their salaries by supervising students from other colleges.

Dr Thoday puts the increasing interest in Lucy Cavendish down to greater publicity in recent years and a general growing popularity in continuing education. The college is named after Lucy, nee Lytton 1841-1925, wife of Lord Frederick Cavendish, and pioneer of women's education.

Application figures show jostle for places

Engineering is proving one of the least popular subjects with university and polytechnic applicants this year, although more sixth formers overall are jostling for places in higher education.

As all institutions fill up their places at record speed, the humanities and law seem to have reached their targets first, with computer and business studies also proving extremely attractive. Many universities have not gone for clearing at all in the popular humanities subjects, but in engineering there is still some clearing going on.

A big increase in overseas students applying to university has intensified the competition for first degree courses this year.

A total of 173,000 candidates have applied through the Universities Central Council on Admissions this year, an increase of 1,000 over 1983.

The latest summary from UCCA shows that competition is tightest in the arts, social studies, medicine, veterinary studies and forestry. In pure science, the demand for places is similar to that of last year, and candidates with

midling to good grades in the main science subjects, particularly sciences, should find places.

In technology, candidates with lower grades are unlikely to find places. They will need good grades in mathematical, electrical and mechanical engineering. But there is a shortage of suitably qualified candidates for metallurgy.

Last year, nearly 75,000 candidates were accepted by UCCA. Of these, some 69,000 were accepted by the end of confirmation and 6,000 through clearing.

A level scores are also up at many universities, reflecting the continued pressure on sixth-formers to compete for places. Statistics for 1983 published this week by the Universities Central Council on Admissions show that average A level scores have been steadily moving upwards since 1981.

At Manchester, there are still vacancies in engineering and physical sciences, which are being filled through the clearing procedure. But the university reports even fewer vacancies in clearing this year than last year, which was

tighter than the year before.

Science and engineering are also using clearing at Leeds University, although the quality of applicants was described as "very good". In science, including engineering, the admission tutors were ringing up the registrar's office, asking if they could take in extra students, because there were so many good applicants without a place.

Swansea have no vacancies which they would want to advertise. The university says it is "full to the brim" although it is still prepared to consider some candidates with good A level grades in chemistry and physics.

At East Anglia, there is some use of clearing in science subjects, but again the university is nearly full. Most pressure was on law, English, electronics and computing studies. Grades were higher than ever.

It is a similar story at Salford. The only places left are in physics, chemical engineering, electrical engineering and social sciences. But they are all well-qualified candidates.

CAN THERE BE A MORE POWERFUL ARGUMENT THAN OUR 600 INSTALLED NETWORKS?

RESEARCH MACHINES LIMITED INSTALLED NETWORKS 1982

INNER LONDON EDUCATION
AUTHORITY

A.E.R.E. HARWELL

BLOOD PRODUCTS LABORATORY

HERTFORDSHIRE EDUCATION
AUTHORITY

MARCONI

SUFFOLK COUNTY COUNCIL

MRC CRYOBIOLOGY GROUP
(CAMBRIDGE UNIVERSITY)

ULSTER POLYTECHNIC

CROYDON ITEC

CHELSEA

STAFFORDSHIRE EDUCATION

STOCKLANDS

TECHNOLOGY CENTRE

CHESTER BEATTY LABORATORIES

BIRMINGHAM EDUCATION
AUTHORITY

OXFORD UNIVERSITY

NORTH TYNESIDE

METROPOLITAN B.C.

NEWCASTLE UNIVERSITY

LEICESTER UNIVERSITY

BEVERLEY BOYS SCHOOL

EDGE CIC

The computer has made itself at home in our offices, laboratories and classrooms.

In fact, the big problem today is providing enough hands-on facilities for everybody. That's why so many schools, colleges and businesses are installing computer networks, to distribute the computer facilities cost-effectively to more users at a time.

At least, that's the theory.

THE RML CHAIN NETWORK - SIMPLICITY ITSELF

In practice, an effective local area network can be hard to achieve if the machines you start with were originally designed for single-user home computing (as many institutions have already learned). They need extra chips, special clock boxes and power supplies, and often liberal use of the soldering iron.

THE RML CHAIN NETWORK IS DIFFERENT

With its powerful 380Z server unit and high-specification 480Z work stations, you can get it up and running without any exotic bolt-on extras.

You'll find it easy to use, fully-interactive, and above all reliable. In fact, the CHAIN network will support up to 16 simultaneous users at a lower all-in price than competitors' machines with far inferior performance.

UNIQUE UPGRADE PATHS

The RML microcomputer system evolves effortlessly from stand-alone station into multi-user configuration.

En route to the full CHAIN network, our new Shared-Disc System provides low-cost facilities to several

users simultaneously from one disc-drive unit.

So if you are thinking of a multi-user upgrade, look at the RML CHAIN network before you buy.

It's the one that has proved itself - 600 times over.

For details contact Tina Davies at the address below.

RESEARCH MACHINES
MICROCOMPUTER SYSTEMS

Sales Office: Mill Street, Oxford.
Tel. Oxford (0865) 249866

Cambridge seedbed rated

by Jon Turney
Science Correspondent

Cambridge University will be confirmed as the country's most fertile academic seedbed for new high technology firms by a detailed local study to be published later this year.

The study, by economic development consultants Segal Quince and Associates, finds that well over half the 300 or so small, technology based companies in the area have links with the university. Although a separate investigation for the city council released earlier this year found the Cambridge Science Park was not notably successful in prompting academic-industrial links, the new study shows the science park is only a small part of "the Cambridge phenomenon".

The unusual growth of new firms in Cambridge was noted in Sir Alan Muir-Wood's report on university-

industry links last year for the Advisory Council for Applied Research and Development, and the report recommended a special study of the area. The Department of Trade and Industry backed the idea, in a consortium with Trinity College, Cambridge, and well known local firms including Sinclair Research and Acorn Computers.

The researchers found the growth of high-tech industry around Cambridge had local roots, unlike other areas noted for new firms which are often helped by relocation and new initiatives by outsiders. Half the 250 companies contacted had started in the last five years, and 80 per cent are independent concerns rather than subsidiaries.

The firms cover computers and electronics, scientific instruments and biotechnology, all markets open to academic researchers. And the long history of low barriers between the university and local enterprises was

important in nourishing the growth of the start-up companies which are the main feature of industrial proliferation in Cambridge.

The report will suggest the climate this created was more important in promoting new industry than any formal arrangements for academic-industrial liaison. Since the days when the Cavendish Laboratory, the university has taken a relaxed attitude to outside commitments by academics. The university computer laboratory and the engineering and physics departments have been especially prolific sources of ideas for new companies.

Once the wave of start-ups began, it was partly self-sustaining, as slightly older companies spawned new competitors. The Segal-Quince study finds that a second shared characteristic aside from university links is that many of the companies have links with one another.



Sir Patrick Nairne... difficult task

Painting a picture of life in Hongkong

by Paul Flather

A unique task awaits Sir Patrick Nairne when he flies off to Hongkong later this month. He has been chosen as the British member of a two-man team to help monitor local reaction to the Anglo-Chinese agreement on the future of the crown colony, expected shortly.

The task is made difficult because a simple referendum is just not possible, with democratic processes only slowly being developed and voter registration still low. Instead an assessment office will have to consult the 300 or so public bodies, including the district boards and committees, and scour the radio, television, and mass of local newspapers for views.

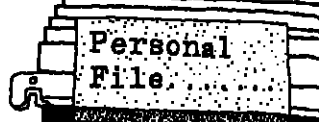
Sir Patrick's job, along with Mr Justice Simon Lee of the Hongkong Supreme Court of Appeal, will be to report back to the Government on whether the assessment is done fairly and properly. "We'll be providing a good housekeeping guarantee."

There is some irony in Sir Patrick taking on the job, as it fell to him in his post as second permanent secretary at the Cabinet Office to organize the 1975 United Kingdom referendum on staying in the Common Market, a task he also recalls as a "hell of a job".

Sir Patrick arrived in Oxford three years ago after a long distinguished career in Whitehall, including 25 years in the Ministry of Defence, two years in the Cabinet Office, and then six years as head of the Department of Health and Social Services.

Those were particularly turbulent years, he recalls, with the days of an expanding health and welfare service ended by the visit of the International Monetary Fund in 1976. Barbara Castle and David Ennals both fought their corner well in Cabinet, he says, before 1979 brought new attitudes on again.

With retirement imminent, Sir Patrick received a letter from Sir Catherine's - a college with which he



had no connexion - inviting him to put in for the mastership to follow founding master, the historian, Lord Butler, still very much in evidence at the college, and now friend and confidante of the current master.

Despite seeing himself still at an Oxford "new boy", Sir Patrick has quietly immersed himself in university and college affairs. He is chairman of the university appointments committee, concerned about graduate employment, and, with St Catherine's proud comprehensive school intake very much in mind, strongly backed recent admissions reforms to widen the intake net.

He keeps on a hefty portfolio of other public posts, currently involved with Central Television, the Voluntary Services Overseas Council, the Radcliffe School of the Sea, the National Maritime Museum, and indulging his interest in calligraphy, chairman of the Italian Handwriting Society.

Last year he became Chancellor of Essex University, a post he admits probably brings him in touch with a greater range of higher education issues than his mastership. He has honorary degrees from Leicester and St Andrews, though sadly he missed meeting a golfing idol, Jack Nicklaus, who had a special late ceremony for his degree from St Andrews.

His great passion, shared by his family, is watercolour painting. A recent holiday in the north Yorkshire moors, just before he begins his one-term dispensation from St Catherine's, gave him plenty of time to paint. If all goes well his next London exhibition may also include the odd Hongkong scene.

Training policy attacked

by Jane Pickard

A bulletin distributed at the Trades Union Congress in Brighton this week represents the first open attack on the TUC Labour Party statement on training by a group of influential politicians and unionists.

It comes from the left-wing National Institute for Youth Unemployment and Training whose supporters include Eric Heffer, Michael Meadler, Moss Evans and Ray Buckton.

The bulletin expresses the months of argument which lay behind the statement, which was presented to the congress as a new £6 billion Plan for Training.

The statement was a compromise between the desire by many on the TUC to retain the Manpower Services Commission as it is and the Labour Party calls for more radical surgery. But the bulletin says the statement, which advocates an improved, two-year Training Scheme, is designed to deflect criticism from the labour movement's leadership and that it fails to acknowledge that "the TUC's voice within the MSC is getting smaller and smaller, while the other two partners - CBI and Government - all at the same time, walk over the workers, reduce adult wages and screw employers lock, stock and barrel."

The article says that there is a real argument to be had about whether the TUC should continue to stay a partner in the MSC and fight its corner - or leave and fight from outside. It urges trade unionists to exert "pressure from below" to bring about changes in training now, rather than waiting for a Labour government. But the national inquiry group which produced the bulletin in itself self-peddling and will not go so far as to campaign for TUC withdrawal from the MSC.

William Salisbury, secretary of the group, said that a notion by the National and Local Government Officers' Association urging withdrawal from the MSC if improvements were not achieved, was "quite close to the policy we are pushing".

The group was merely questioning the validity of the joint statement and pointed out that during the coming year a lot of activity would centre on improving it.

Meanwhile, Mr Barry Sheerman, Labour's spokesman on training and employment, this week gave the Plan for Training an airing among his constituents.

He called for the immediate extension of the YTS to two years and a massive expansion of community programme - two of the main planks of the plan.

Referring to the National Economic Development Council report on training in West Germany, Japan and the United States, he said: "Our international competitors outpace us now in economic performance and will continue to do so unless we tackle the shortfall of skills in our workforce."

He criticized the YTS for throwing young people back on to the dole queue, as a graduation present, when they had finished their year on the scheme.

But the MSC believes that the YTS has finally got the seal of approval from young people. Its latest figures show that by the end of July more than 100,000 teenagers had joined the scheme, more than double the 45,874 entrants who had entered by the same time last year.

Mr Roger Davey, the MSC training division's chief executive, said: "This is an excellent start to the second year of the YTS and shows that the scheme is working well."

FCS in compromise move

The new leadership of the Conservative Students' organization is to revive the idea of voluntary union membership in an attempt to produce a cohesive internal policy towards the National Union of Students.

The half-yearly council of the Federation of Conservative Students will this weekend consider what its leadership describes as a compromise policy. They say the compromise - contracting-in rather than contracting-out of student union membership - is a move away from outright opposition to the NUS.

But in a step hardly likely to build a spirit of compromise, the FCS leadership has received credentials issued to National Student, the newspaper circulated to NUS-affiliated colleges, and banned its reporter and photographer from the conference.

Mr Ian Coxon, managing editor of National Student, this week raised the exclusion of his paper with the Prime Minister, Mrs Margaret Thatcher, who is president of the FCS and Mr John Selwyn Gummer, chairman of the Conservative Party.

A commitment to issue credentials to the newspaper was given last month by Mr Tim Cowell, the party's assistant director, youth, but was almost immediately countermanded in a letter by Mr Mark MacGregor, vice chairman of the FCS, who said only nationally-distributed newspapers were being invited.

Mr Marc Henri Glendenning, chairman of the FCS cleared up any misconception that the decision was organizational and not political. This week he told THE TIMES: "They (National Student) are political enemies. We would no more give them credentials than we would National Front News or Labour Weekly."

"Their only motive is to smear our organizations. If they were prepared to report our proceedings objectively they would be welcome to cover the conference, but all the reports which have been published in National Student have been derogatory, politically biased and contrary to the facts."

Mr Coxon said his newspaper set out to be fair and objective in its coverage of student politics in all its shades of opinion, and had been represented at

the last three FCS half-yearly conferences. Its reporter and photographer would travel to Edinburgh, where the council is being held this weekend, to report the proceedings.

"The FCS is the largest single student body in the country and National Student is always willing to report their activities fairly and squarely," he added. "They will be doing a disservice to their own members if they are not prepared to have the proceedings properly reported."

Aside from the National Student ban, the council promises to be a fiery affair, with a number of controversial speakers including Mr John Taylor, the Official Unionist MEP, Mr Michael Forsyth, MP for Stirling, and Mr Jardo Meealla, the British representative of UNITA, the Western-backed rebel opposition to the Angolan government.

The National Student reporter, Mr Christopher Ward, and photographer, Mr Simon Grosset, are lodging complaints with their union, the National Union of Journalists over the FCS action.



What price the loon pant left?

Student politics are dead and radical students disappeared with the 1960s, or so we're told by those who look back on the student unions of the 1960s as dynamic forums which never recaptured their youthful vigour. But what of the generation that don't remember embroidered loon pants or Jimi Hendrix - are we really as complacent or reactionary as we're painted? It's perhaps worth looking back a little more carefully before we draw our conclusions.

Then, as now, students very often concerned themselves with more subtle methods of change. Radicalism which is of value is that which has a lasting effect. Student demonstrations didn't end the Vietnam War nor have they ever brought down a government.

Occupations and demonstrations in the 1960s were a diversion which, although they mobilized some people and had a propaganda effect, rarely reflected majority commitment. Agreement to a demonstration could often be won at a meeting of 200 to 300 people and actual participation in it often required very little commitment to or even understanding of, the concepts or political principles at issue.

Today with fewer and fewer official forums available to us student and youth politics have a constantly growing participation. Student politicians in the last year have had to win debates attended by 600 to 1,000 people in student unions up and down the country. The growth of the new right and greater participation of groups such as the Federation of Conservative Students has meant that the left no longer has the luxury of debating with itself.

As well as their political groupings it should be remembered who the activists are. Twenty years ago, most student activism involved exclusively left wing, exclusively white, exclusively male students. Today, all that has changed. The recent resurgence of CND has encompassed much of the left and centre and is heavily grouped around students; the 1970s' demonstrations against full-cost fees for overseas students involved black and white students from the UK and overseas working together as did the anti-racist demonstrations of the late 1970s. As well as the enormous growth in their autonomous action women have become a major force.

Perhaps the innocent idealism has dulled a little but this is perhaps more due to political maturity than to apathy. There were student outcries against the invasion of the Falklands and of Grenada, against the declaration of UDI in Cyprus and against the attacks on Tamil communities in Sri Lanka. Students are still an enormous force within the anti-apartheid and peace movements, but they are also particularly active in issues that effect their immediate lives and those around them.

In student campaigns, the days of the isolated demand for "grades for all" have passed and been replaced by far broader education of the need for mechanisms to create an equal and accessible education system.

If students are judged to be less radical because their actions are designed for specific achievable ends, rather than propaganda, then this judgment is unjust. Student politics are far from dead and students are not less radical - maybe just more determined.

Lesley Smith

The author is vice president education of the National Union of Students.

MSC tries to woo local authorities

by Karen Gold

Senior Manpower Services Commission officials have set out draft guidelines for education officers on what they plan to do with the 25 per cent of local authority non-advanced further education money the Government wants to give the MSC.

The guidelines are part of the MSC's attempts to persuade the officers to discuss the plans: at present all local authorities are refusing to have anything to do with the scheme set out in the Government White Paper Training for Jobs.

The White Paper, to be discussed again by the MSC later this month, would remove 25 per cent of Government money that currently goes to local authorities to run NAFE courses and give it to the MSC to improve work-related provision.

The MSC paper says the commission wants to work with authorities collectively, but assumes that at the start of the scheme in 1985/86 it will have to work directly with individual authorities. It offers a "joint planning relationship" in reviewing work-related NAFE, in which authorities propose new or existing courses for MSC funding of between one and two thirds of their cost.

More money would go to new courses than existing ones, although the paper admits that courses supported in 1985/86 would be largely existing ones. Local employment needs should be the main consideration, the paper says. Authorities would be invited to review their colleges' market research and improve it, and identify significant sectors where there was uncertainty about how industry's needs were to be met, with advice from ad hoc groups of employers.

Areas suggested for new courses include information technology, particularly technology and business studies; engineering and robotics, particularly at technician level; service skills, particularly in travel and tourism; and local specialist courses.

Courses would be mainly full-time, aimed initially for young people, but the MSC also wants to support adult training courses in this area later. And it wants "flexible delivery": enrolment, teaching and examinations outside the traditional college term; modular courses and credit transfer, and work experience.

When deciding which courses to support, the MSC would look for: adequate market research to make sure a course's content, organization and delivery meet employers' needs; regular review of the course, staff competence and equipment against trends in employment and take-up; and qualification: "MSC would want to consult HMI and others about the plans we are asked to support", it adds.

The Association of Metropolitan Authorities' education committee held a special meeting this week to discuss alternative ways to improve non-advanced further education with which it hopes to counter the MSC plans. AMA education officer Mr Bob Morris said the paper showed the MSC was still producing half-hearted ideas for areas already covered by colleges.

'Too many managers spoil CERN research'

Problems of multinational management have cut research productivity at the European Nuclear Research Centre (CERN), according to a major new study of the Geneva centre's standing in world physics.

The study, conducted over the last two years at the Science Policy Research Unit at Sussex University, finds that CERN's scientific productivity between 1969 and 1978 was appreciably lower than its three main American rivals, Brookhaven, Stanford and Fermilab in the mid-West.

They found that although CERN produced more papers than other facilities, they tended to be less influential, and the laboratory produced few major discoveries during the revolution in particle physics in the early 1970s. Although the study was finished before the important successes at CERN in 1983 in identifying the long-sought W and Z particles, the conclusions are sensitive because of the current inquiry by the Advisory Board for the Research Councils into British membership of the laboratory.

The results of the SPRU work are reported in two detailed papers in the journal Research Policy. The authors, Mr Ben Martin and Mr John Irvine, assessed output from CERN, and from its individual accelerators using six different indicators. Five are taken from data on publications and citations of papers from different laboratories and the sixth from interviews with a large group of physicists asked to rank the facilities.

Although this method, formerly applied by the same team to radio astronomy and other areas, relies partly on the indicators giving similar results, they do not converge in the case of the five particle physics labs now studied. However, the Sussex authors are confident that their interpretation of the results still holds.

The authors say the crucial question raised by their analysis is whether these problems are intrinsic to a large multinational laboratory. However, they point to the possibility of similar problems arising in the United States as more institutions seek to share in fewer accelerators. Their conclusions will provoke heated debate, among scientists suspicious of application of their assessment methods, physicists anxious about the future of CERN and proponents of a "world accelerator".

A further SPRU paper, to be published in December, also criticizes the way the CERN management decided to go ahead with the 27km circular accelerator known as LEP, now being built. The three papers together will form a controversial input into Sir John Kendrew's CERN review group. Sir John said this week he had not yet received the papers, but would study them closely.

Mr Clement Freud, MP for Ely, and the party's education spokesman, is to move an amendment to a motion on higher education calling for an expanded and adequately funded OU.

He said this week: "The OU is a cost-effective institution which has given a second chance to many people who have been ill-served by the mainstream education system. Cutting its

Expand OU, say Liberals

Liberal leaders will pledge support for the Open University later this month when the party assembly is expected to call for greater flexibility throughout higher education.

Mr Clement Freud, MP for Ely, and the party's education spokesman, is to move an amendment to a motion on higher education calling for an expanded and adequately funded OU.

He said this week: "The OU is a cost-effective institution which has given a second chance to many people who have been ill-served by the mainstream education system. Cutting its

support is an act of petty vandalism which all Liberals oppose wholeheartedly."

The conference motion is to be moved by the chair of the party's higher education panel, Mr Alan Leaman. It calls for a more flexible entry system to encourage traditionally-disadvantaged students, provision of a life-long service enabling adults to move in and out of the service, more movement between advanced and non-advanced further education, and greater accountability including opening-up of decision making and creation of a Higher Education Council.

Adult group faces review

A change of heart has taken place at the Department of Education and Science over the decision to terminate grant aid to the Educational Centres Association in three years' time.

Mr Peter Brooke, minister of higher education, has announced a review of the financial position will take place instead. Now representatives of the ECA are pressing for a meeting with DES officials to clarify the position and to put forward their detailed plans for the organization's future.

The rethink on ECA funding follows an outcry in adult education over the Government's plan to phase out the

annual grant of £18,000 for 1988. The DES is now proposing to reduce the grant to £6,000 for each of the next three years, with the review of the long-term financial prospects to follow.

Despite this move, members of the ECA at their annual conference last weekend were determined to continue their campaign to maintain the aid grant. They argued that the ECA, whose member institutions range from extramural departments and small voluntary educational institutions, cannot raise additional money from external sources.

The report says the resources for teacher education at Humberstone are generally very good and staff are taking substantial responsibility for their own development.

"The way in which the work of the staff subject groups is leading to an increasing contact with primary schools is to be welcomed," the report says.

There is also said to be excellent liaison with schools.

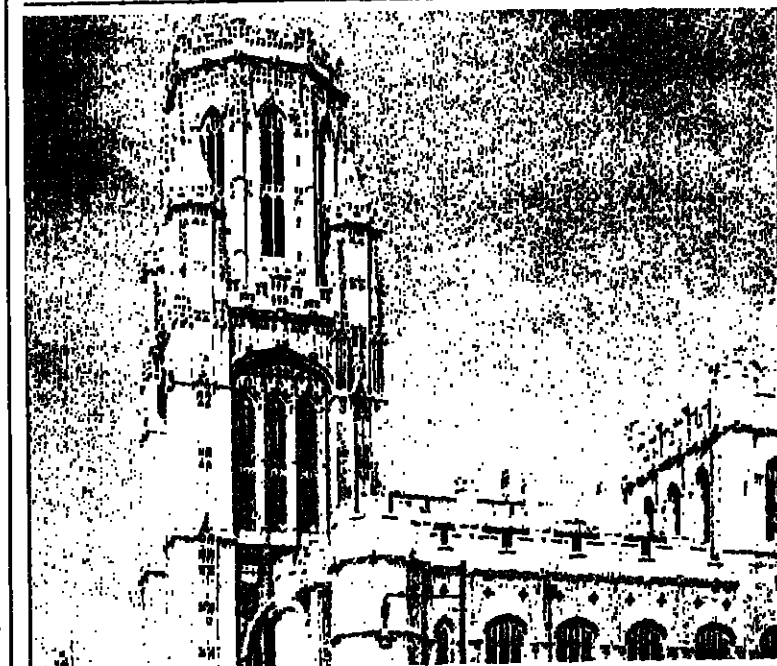
College urged to make teacher course more rigorous

The DipHe and BEd courses mean that only two years are available for the specific preparation of a teacher. The staff have been concerned to provide students with a basis of skills and teaching approaches within this time and this has led, in several curricular areas, to a rather superficial approach.

In looking to future developments in the training of primary teachers, the college should ensure that the theoretical basis given to students is made more rigorous."

The inspectors also single out the BEd course for primary and middle school teachers for criticism. They say it does not provide adequate professional training in a number of important areas of the curriculum and they welcome a review being undertaken by the college.

They also suggest that two courses for teachers of mentally handicapped children and slow learners, should be developed, since they are too specialized.



Not a smokescreen: the aim is rather to attract students to one of Bristol's landmarks with the hope that they will now identify the Wills Memorial Building in the city with the university's extramural provision. The adult education department, which annually caters for 17,000 students on 800 courses, is occupying the neo-Gothic building by King George V in 1925. Students and staff will be able to mark the hours of study by the hourly chime of Great George, the fourth largest bell in the country.

Vaizey strategy advocates tighter ratios and student loans

Tighter student/staff ratios in the universities and polytechnics, abolition of non-advanced further education in the colleges, and student loans are central to a re-orienting strategy drawn up by Conservative peer and economist, the Lord Vaizey.

His scheme, posthumously published in the September issue of the Observer magazine, is aimed at cutting annual £7 billion from the annual £13 billion education budget.

Lord Vaizey, who died last month, was professor of economics at Brunel University and took the Conservative

current initiative rather than remaining at school until they reach 16. This, he said, would save about 12 per cent of the total school bill of almost £7 billion.

A shift from a staff/student ratio of about 1:8 to 1:12 would cut the cost of higher education from £1.9 billion to £1.5 billion, while replacement of school budgets, the elimination of juvenile unemployment pay and supplementary benefits, and the replacement of extramural education colleges by training centres designed to serve the labour force.

Brunel study highlights inconsistency

by Karen Gold

Employers treat higher education with widespread inconsistency, more influenced by recruits' A level grades than degree courses, a new study at Brunel University sponsored by the Department of Education and Science has found.

The 10-book, 1,319-page report was concerned with how higher education might respond to the needs of employers, students and providers on higher education in the context of a DES scenario of limited resources and an employer-led rather than demand-led higher education system.

Interviews were done with 201 employers, but the report says, it is difficult to generalize their needs. Employers in general express dissatisfaction with higher education, but the specific employers interviewed in the study seemed largely satisfied.

Employers recruit graduates, yet according to the report, they tend to place more emphasis on the graduate's A level grades and the type of institution attended - preferably Oxbridge or redbrick universities - than on the course content. The researchers found a widespread opinion that polytechnic graduates were second best. "We have ample evidence that the institutions in which so much hope was invested in the 1960s, as providing new forms of directly relevant education, are often ignored or underused in the recruitment process."

The report recommends that central agencies and government do not try to impose restrictions but increase their flow of information about what employers and students want, and provide incentives for particular types of courses, possibly through tax relief.

Expectations of Higher Education, published by the Department of Education and Science.

Peter Scott reports from Lancaster on the sixth international higher education conference

Birley defends marketing values

The importance and legitimacy of marketing within higher education was defended last week by Dr Derek Birley, vice-chancellor designate of the University of Ulster in an address to Lancaster University's sixth international conference on higher education.

"It is no longer sufficient to put

A picture of resistance

By the time of the next Lancaster conference in 1989 not much would have changed to bring in the High-Tech Academy, Professor David Hawkrig, director of the Open University's Institute of Educational Technology, predicted.

There would be more information technology, more computers, more networks, in British higher education but the amount of time that the average student spent on IT would not have increased significantly.

"Since at least 80 per cent of present academic staff are likely to be still in post, four years from now, I can also predict safely that most will still know very little about IT for teaching and research and many will continue to resist its invasion of their curricula," he added.

The picture in 2000 AD was more difficult to predict. Some students, by no means all, would have experienced IT at home or in school. Half the present staff would still be teaching. The buildings used by higher education would be very much the same - not very suitable for teaching with IT.

Professor Hawkrig quoted Lord Flowers, rector of Imperial College, to the effect that the trouble with IT is Britain was that it was more a case of technology-push than application-pull.

"Here is technology looking for a problem rather than people looking for technology to solve a problem. Will the High-Tech Academy of 2000 AD be technology-led, academic-led, demand-led, profit-led, or social-needs-led? These are interesting questions."

Breaking new frontiers

The new information technology was pushing us towards the internationalization of learning, Dr David Gardner, president of the University of California, told the conference.

"If nine campuses in a single university can be linked together in a telecommunications network that runs the length of California, then colleges in Chicago and Boston and Montreal can be linked too, he said. "And so too can universities in Lancaster, Paris, Padua, Copenhagen and Uppsala. The technology is already there."

Technical barriers of course existed. Cost and compatibility were among them but "it seemed reasonable to assume that costs would go down eventually and in the meantime collaboration between institutions could make the new technologies affordable."

There were also social and political barriers. One was the danger of allowing the technology to create two classes of people, the information rich and the information poor. Another was that governments were often less eager than universities to foster the sharing of information and ideas.

New deputy takes over at PNL

Dr Ann Nutkins, currently assistant director of the Polytechnic of North London, has been appointed deputy director. The three-year appointment was previously held by Dr David Croome. Dr Nutkins was head of the mathematics, statistics and computing department from 1968 to 1980.

together a course by guess and by God and then, as a concession to modernity, to mount a publicity campaign," he said. Instead course planning should be based on the systematic investigation of student wants and community needs, outside advice from experts and regular reviews.

Dr Birley added that this notion of marketing was sometimes represented as a debasement of cherished academic ideals. The counter argument was that ideals long cherished might already be debased if they were not exposed occasionally to the test of utility.

"In any event marketing in higher education does not mean accepting the values of the market-place - those values are much more likely to prevail through the unreflecting anachronistic acceptance of Robbins which expects governments to bail out mediocrity and irrelevance," he added.

Dr Birley also argued that industrial-style negotiation should be accepted as a fact of life in higher education and recognized openly. Better communication and consultation were important but they were not "front-line activities", mainly because they were often simply stalking horses for negotiation.

Higher education institutions needed to spell out their objectives more clearly even if this meant producing "mission statements". To reject planning in the cause of freedom was to risk being enslaved by bureaucracy.

Governments tended to resort to bureaucratic control because they had to find the money but were inhibited by the tradition of academic freedom from introducing overly dirigiste methods of policy-making, Dr Birley argued.

Bureaucracies are notoriously bad at evaluation - it is a notion that interferes with the smooth running of the system," he added. "So they tend to consider policies only at the margin. At the best of times this is not efficient either as policy making or in getting value for money: in times of recession it is a poor basis for radical thinking about priorities."

If higher education rejected evaluation it would get something worse - rationalization. The danger of restricting the Government's role to matters of organization and resources as tradition required was to invite a situation in which decisions on organization and resources predetermined policy.

Dr Gardner added: "Universities can help remove such barriers by insisting on as free an interchange among scholars and institutions as they require within their own academic communities. If universities don't insist on such academic freedoms, who will?"

The best use of these new technologies would be made if it was remembered that they were aids to teaching and learning not a substitute for them. Students could be given access to more information and to a richer educational experience but there could be no guarantee that they would also experience the intellectual development and integration necessary for a complete education.

Dr Gardner argued that the new technologies did more than transmit facts and theories. So it was important to learn more about what happened when machines and humans interacted. Was a seminar by satellite the same as sitting in the same room with a professor and other students? Did it make a difference whether a music student was instructed in composition by a human or an electronic teacher?

Group set up to study adult guidance

A development group to examine educational guidance for adults has been established by the new Unit for the Development of Adult Continuing Education.

Apart from studying formal guidance systems, the group will look at informal provision and the services

New language course developed

by Paul Flather

A radical new language curriculum designed to improve the communicative competence of students taking university degrees in French is being developed by a team of linguists drawn mainly from Scottish universities.

The curriculum which will be made available to all universities after the three-year project, is designed to produce improvements in all practical language skills such as reading, listening, speaking and understanding, for use in later life.

The research team, headed by Professor Samuel Taylor, professor of French at St Andrews University, promises improvements in all round competence and ability, though it concedes the new curriculum is bound to mean much less reliance on traditional language learning methods of prose and translation.

The project is being backed by a £40,370 grant from the Economic and Social Research Council - the first major grant for higher education language development since the demise of the Committee for Research and Development in Modern Languages and the heyday of language research from

1964 to 1970. It will involve language experts from St Andrews, Dundee, Heriot-Watt and Newcastle, who will pool their equipment and specialist interests, and it will be evaluated by Professor Noel Entwistle on the Godfrey Thomson Unit, in the education department of Edinburgh University.

Professor Taylor believes that for too long it has been widely assumed that the traditional methods of language teaching in universities have been working effectively. Scottish universities, technological universities such as Aston and Salford, and the polytechnics have been in the forefront of emphasizing more practical skills, he said.

"Current teaching can, of course, be very good," he said. "But it is largely determined by a strict academic approach through conversation skills, classes and live contact abroad. This doesn't necessarily prepare you to stand up in a committee and perform in French."

He believes many students leave university with a rather inflexible knowledge of their chosen language. "They know a lot about, say, French literature or how to speak informal French, but can they cope with an

engineering contract or discuss with their peers?" he asks.

Professor Taylor, who is also chairman of the National Council for Modern Languages, is confident the work will be widely adopted once it is published, probably in 1987. He has already chaired a Scottish schools examinations working party which should be the primary objective of schools language teaching. That report, now open for consultation, is likely to be adopted next year.

He is also hopeful that the exercise, first launched after a pilot grant from the Nuffield Foundation, can be repeated for German and Spanish. He keen to start a campaign for more language research funding, a key topic for a conference to be held in London on October 26.

The ESRC has given a number of grants over £10,000 for linguistic research, and £67,000 was given in 1975 for study into spoken Arabic. No major sums have been given for curriculum development since the early 1970s. The current Nuffield inquiry into modern languages is bound to take note of the St Andrews findings.

NATO team warns of too much secrecy

by Jon Turney
Science Correspondent

Increasing scientific security to safeguard militarily sensitive work could slow the pace of technological development and impede Western scientific cooperation.

These are two conclusions of a report from the Nato science committee on open communication in science. However, the report also suggests that new controls are needed to stop some scientific results reaching the Soviet Union or its east European allies. But it says researchers should be prepared to work with governments to find the best way of doing this.

The Nato science committee brings together members from the United States, Canada and the 14 European members of the Western defence alliance. The British representative is Professor John Kingman, chairman of the Science and Engineering Research Council.

The committee administers sponsorship of scientific exchanges, meetings and fellowships, as well as considering general problems of science policy. The committee's report on free communication is concerned with the "grey area" between research which must be classified and work producing information which can be circulated without restriction.

Their report points out that this category of technologies which have military and civilian uses is getting bigger as new weapons depend more heavily on advanced technology. It cites integrated circuit fabrication, space technology and microbiology as relatively recent additions to the list.

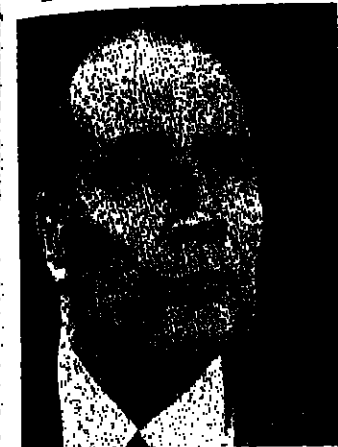
Attempts by the US Department of Defense to restrict publication of sensitive scientific work have also had some effects on European universities. The Committee of Vice-Chancellors and Principals protested earlier this year at American measures, including banning British scientists from meetings in areas like materials science.

The Nato committee proposes that research technologies to be considered for control should be selected if:

- the science is linked to a rapidly developing technology;
- the technology has military uses;
- the Eastern bloc could derive near-term military benefits from the results;
- the information is not available from other sources in the East.

However, the committee stressed governments should avoid restrictions which hamper collaboration between scientists in Nato countries. The scientists in Nato countries. The Nato advisers favour an effective way of preventing unwanted transfer of military technology. But the report says this would imply efforts to educate scientists on "the potential damage to the security of the West of timely development group."

France changes age limit



François Mitterrand: faced opposition.

from David Dickson

PARIS After a long and frequently acrimonious debate, the French National Assembly has passed a law reducing the retirement age of all university teachers from 68 to 65.

The new provisions, which form part of a broader bill covering all government employees, will be introduced in stages. Beginning next January, the retirement age for university teachers will be reduced annually by one year at a time, reaching 65 at the beginning of 1988.

This gradual phasing in of the retirement age is one of several concessions that the socialist government of President François Mitterrand has agreed to accept in the face of strong opposition, in particular from senior members of the civil service, who had complained that a would remove from their post many administrators who are still working actively and whose positions would be difficult to fill with individuals of comparable experience.

Reflecting these criticisms, the government's proposals were heavily revised earlier this year by the opposition-dominated senate, which substituted several new measures of its own, significantly weakening the bill's main provisions.

These revisions, however, were rejected last week at the second reading of the bill by the National Assembly, which agreed to restore the main thrusts of the government's original proposals.

At the same time the government has made several concessions to its critics. In addition to the gradual scaling of the earlier retirement for the nation's 43,000 university teachers, it has accepted a special exception for all professors in the prestigious Collège de France in Paris.

However the government has maintained its strong commitment to the principle of introducing the reduced retirement age as widely as possible. It argues that in a period of budgetary constraint on public spending, this is one of the few ways of encouraging the recruitment of new blood into important public services.

The strongest opposition to the bill had come not from the universities but from the heads of nationalized industries, several of whom will now be required to retire at the end of this year, when the bill comes into force.

Swedish body proposes cuts alternatives

from Donald Fields

STOCKHOLM Sweden's National Board of Universities and Colleges has issued new proposals on how to adapt higher education to a medium-term squeeze on public spending. Responding to demographic and other projections, it advocates a sharp cutback in pedagogical studies within the unified system of higher education (universities and other institutes of higher education) and a boost for data-processing and electronics.

The board has come up with two alternatives. The first would tally with a government target of a real 10 per cent saving by all agencies in five years, with cuts of SKr340m (£31m) in higher education. The second - which reflects

Report slams 'chaotic' teacher training

from Peter David.

WASHINGTON Teacher training in the United States is "chaotic" and up to half the existing courses should be closed, according to a blistering report published here last week. It says the pay and status of teachers will not improve until universities and colleges which run teacher training impose rigorous admissions standards.

"Far too many teacher education programmes today accept anybody and everybody who harbours the slightest aspiration to teach. No assessment of qualifications takes place at entry or exit from such programmes, and courses offered are ill-defined and often impractical. All such programmes should be summarily shut down," the report says.

Published by the National Center for Education Information (NCEI), a private research group, and based on extensive surveys conducted in the spring and summer of this year, the report is the most outspoken of a series of studies that have criticized teacher training standards over the past two years.

A widely publicized report issued last year by President Reagan's National Commission on Excellence

in Education complained that too many teacher training candidates were being drawn from the bottom quarter of graduating secondary school and college students, and a study by the Carnegie Foundation for the Advancement of Teaching accused the universities of neglecting their responsibilities for teacher training.

But the NCEI study paints an even bleaker picture of a wildly diverse teacher training system in which many institutions do nothing to enforce standards and many states employ teachers with substandard credentials or no certification at all.

The survey found that an astonishing 82 per cent of the institutions with teacher training courses ignored the marks scored by candidates in the scholastic aptitude test (SAT) and the standardized achievement tests taken by most college-bound school-leavers in the United States.

Those colleges that did insist on minimum SAT and ACT scores for admission tended to be the large state universities with student bodies of 10,000 or more. Although these institutions make up only 17 per cent of the 1,287 colleges engaged in teacher training they have been producing half

of all teacher graduates produced over the past decade.

But this pattern is changing. The report says there has been a proliferation of smaller, mainly private, colleges offering teacher training. "More prospective teachers are entering these smaller colleges, which rarely reject any applicant. For the most part, they do not have rigorous entry or exit requirements. Fewer than 20 per cent of them are accredited by the National Council for the Accreditation of Teacher Education."

One reason for lax standards, the report says, is the chaotic variation in teacher certification policies between and even within states. Since each state controls who can be certified and how, the number of different types of certificate is staggering. Florida, for instance, certifies 416 separate vocational and academic areas. Any graduate of a state-approved teacher training programme can teach in Florida, but not necessarily anywhere else.

Despite the case of gaining a place in teacher training, the number of prospective teachers on undergraduate courses is falling precipitously, raising the spectre of major teacher shortages later in the decade, the report says. In 1973 some 688,000

teacher training students were enrolled in 1,172 colleges and universities. By 1983 the number of institutions had risen to 1,287 but enrolment had slumped 35 per cent to 444,000.

The NCEI says the decline seems to have been a straightforward response to a 14 per cent drop in pupil numbers over the last decade, but warns that the demand for teachers is likely to increase again at a faster pace than supply. School enrolments are expected to rise steadily from the late 1980s, creating jobs for 170,000 new teachers in 1986, when the number of teacher graduates will have fallen to 88,000.

Anxiety about shortages, however, should not prevent the United States from taking urgent action to winnow out low-quality courses, the report says. In addition to closing substandard courses, the NCEI recommends channelling more prospective teachers into good courses by allowing only the best institutions to qualify for new federal grants designed to attract better qualified students into teaching.

"Even more pressing is the need for national standards for certifying teachers, including a national proficiency examination," the report concludes.

Universities reopen to boycott

from D. B. Udalgama

COLOMBO The universities of Colombo, Peradeniya, Kelaniya, Moratuwa and Sri Jayawardenapura reopened in mid-August to a boycott by students demanding the removal of the police post at Peradeniya. The initiative apparently came from the student action committee of Kelaniya.

On the day of the reopening, undergraduates in Colombo staged a protest demonstration, carrying white flags in memory of the two students who were killed in police firing at Peradeniya and Colombo last June. The demonstration was dispersed by the police.

The students have also demanded that the universities function under the normal laws instead of emergency regulations.

YOUR DIRECT ROUTE TO A SPECIAL THES SUBSCRIPTION OFFER

If you subscribe now to The Times Higher Education Supplement for one year (52 issues) in addition to your weekly delivered copies we will also send you, absolutely FREE, a copy of the latest full colour edition of the Collins Road Atlas of Britain AND a copy of the latest Collins Road Atlas of Europe (together worth £8.45). Simply point your pen in the direction of the coupon below and send it together with your cheque or postal order, made payable to Times Newspapers Limited, for £30.00 to the address shown below.

Please note offer applies to new subscribers in the UK only and closes on December 31 1984.



Please send me a year's subscription to The Times Higher Education Supplement and my free copies of the Collins Atlases. I enclose my cheque for £30.00 (made payable to Times Newspapers Ltd). Please send to:

NAME _____
ADDRESS _____
SIGNATURE _____ Date _____

Please send this coupon with your cheque to LESLEY GRIFFITHS, The Times Higher Education Supplement, Priory House, 51 Johns Lane, London, EC1M 4BE.



Hopes of a fresh approach

The election of a Labour government in New Zealand holds out the hope of a fresh approach to education following years in which the share of New Zealand's net government spending on education declined from 17 per cent in 1973 to 11.7 per cent in 1984. This decline came about because the nation's investment in education was not kept up in real terms and, more particularly, because government-directed cuts which were designed to trim the so-called fat in the system cut deeply into muscle and sinew.

Teachers and others involved in all levels of the education system have battled long and hard for the cause of education — so much so, that the previous prime minister declared that teachers had overtaken manufacturers as the nation's most vociferous lobbyist.

Throughout the last 40 years, universities in New Zealand have suffered through a period in which funds were cut while student numbers have increased at a rate far in excess of predictions. Research funding has declined to ridiculously low levels, the number of teaching fellowships was reduced and staff-student ratios deliberately worsened through government policy.

With respect to other university systems the Labour Party made some specific pre-election commitments within its overall view that human beings are New Zealand's most valuable resource and that they have a right to an education which allows them to be themselves and to grow to their full potential.

Labour has promised that it will conduct a comprehensive assessment of university education in New Zealand with particular emphasis on future trends; develop with the universities courses for the remainder of this century consistent with agreed social and development objectives; provide sufficient staffing to reverse the present adverse staff-student ratio trend; expand access to extramural study, especially in the South Islands; and reaffirm the importance of university research.

The Association of University Teachers of New Zealand has for some considerable time been concerned that New Zealand's traditional system of open entry to university was being eroded through financial pressures on students. We are encouraged, therefore, at Labour's commitment to review the present tertiary assistance grant scheme, to provide open and bursary supported entry for adult students aged 21 and over and to restore the student community work scheme.

Labour is also committed to the abolition of the NZ\$1,500 fee for private overseas students and will not, therefore, implement the previous administration's policy of full-cost fees for private overseas students which would have seen this fee increasing three and four-fold for various courses.

Economic realities will mean that some of Labour's policies will not be implemented before 1986. However, two non-cost promises which the association welcomes are the recognition of AUTNZ as the official negotiating body for university teachers (a status not presently enjoyed by the association) and the rebalancing of all university non-teaching staff brought within the scope of the state services conditions of employment act in 1983 to determine their preference for representation.

Rob Crozier

The author is executive secretary of the Association of University Teachers of New Zealand.

overseas news

Students guided into the wrong turning

An "inordinately large" number of American students enrol in the wrong universities and take the wrong courses as a result of poor advice at secondary school, according to a group of school and college administrators working on a national college counselling project in the United States.

In a survey of more than 1,000 secondary schools, the group found that a typical pupil spent only about 20 minutes with a counsellor when beginning to make choice of a higher education career in a bewildering array of 3,000 colleges and universi-

ties. The group also concluded that the mountain of promotional literature distributed to schools by colleges eager for students made correct choices even harder to make.

"This information load makes the already complex job of finding the right college more demanding, if not impossible, for college-bound students and imposes yet another burden on counsellors," the group said in a report last month.

"College counselling in high schools suffers from inattention and complacency. High school guidance

counsellors are unduly satisfied with their performance. Ninety nine per cent rate their college guidance programmes as effective, yet less than 25 per cent of these counsellors asked their students or their students' parents for feedback."

The authors of the report argue that poor counselling is responsible for the startling fact that six out of 10 American students fail to graduate from the universities they enter after school. Schools in many rural areas have no counselling at all, and the national ratio of one adviser for every 174 pupils is described as inadequate.

How about English?



Bitter academics condemn Hawke

from Geoff Maslen

MELBOURNE

Representatives of Australia's 14,000 university academics have bitterly condemned the federal government for its spending policies on higher education. Delegates to the annual conference of the Federation of Australian University Staff Associations attacked the prime minister, Mr Bob Hawke, and his senior ministers for their indifference to the needs of universities.

While acknowledging the efforts of the minister for education, Senator Susan Ryan, to secure more money for higher education, delegates said they had no confidence in her ability to persuade the cabinet to meet university needs.

The conference was told the government has slashed A\$90m off the 1985 allocation to higher education proposed by its principal advisory body, the Tertiary Education Commission. The government has also cut back on the planned growth in student numbers and was providing less money for new students than the real cost of educating them.

Delegates to the conference were particularly bitter at the government's intervention in a salary award to academics. Earlier this year the government persuaded the Academic Salaries Tribunal to phase in a 5 per cent wage rise instead of awarding it at once.

The federation was operating from a position of unassailable weakness in its industrial relations, the conference was told, during a debate about what action could have been taken over the government's intervention in the salary award. A motion of censure against the executive of the federation for its initial handling of the issue was lost, but it was clear there was considerable concern at the absence of any vigorous response. "We are a union given to rhetoric, not action, to paper not power," one delegate said.

In the event, the conference voted to increase the federation's attention on industrial matters and to condemn the government for its intervention.

The conference also declared the

federation had no confidence in the autonomy or deliberations of the Academic Salaries Tribunal, although delegates made it obvious that this would not stop them seeking further pay rises through the tribunal. At present, the federation has an appeal with the Australian federal court against the tribunal's decision to implement in full last April. Although the 5 per cent involved is not a large increase and academics acknowledge they are among the well-paid in Australia there is a sense of bitter disappointment with the Labour government over what the federation believes to have been its improper and deceitful intervention.

University recurrent funds should not be diverted preferentially to a small elite of research workers at the expense of the research of their colleagues, the conference decided. This was a reference to a continuing concern of the federation at the very high Fraser government had established the so-called "centres of research excellence" with a three-year grant of A\$16m in 1981.

The 1981 exercise was ill-conceived in principle and poorly conducted in practice, the conference was told. Delegates expressed opposition to the idea of "leading researchers" being allocated lower teaching loads than their peers which was a commendation of the Australian Science and Technology Council, and urged the council to drop the term "centres of research excellence" in favour of "special centres of research".

Like their colleagues in the schools, university academics are now clearly profoundly disappointed with the Hawke government's performance.

During the last federal elections, university staff associations enthusiastically backed Labour's education platform with its promises of more money, more students and more jobs.

But, as Dr Ryan mournfully told the conference: "Having placed the order, the government decided it could not pay the bill. Its guidelines on spending for 1985 demonstrate its reluctance to substitute cash for rhetoric."

Secrets study gets funds

The US National Academy of Science is planning to spend more than \$500,000 on a controversial study designed to clear a way through the tangle of issues raised by the Reagan administration's attempts to prevent the flow of American technological secrets to other countries.

If the study goes ahead, it will mark the second time in the life of the administration that the academy has tried to influence the federal government's technology transfer policy. In September 1982 an academy panel on scientific communication and national security warned the administration that excessive secrecy in the United States could stifle the scientific creativity of its universities.

While the first study concentrated on the impact of national security controls on academic science, the new study will examine how industrial firms are being affected by new constraints on their ability to export high-technology products and reveal technical data to other countries.

Stanford granted genetics patent

Stanford University in California has had a major windfall. It has at last been granted a patent covering genetically engineered molecules that can be used to develop products in bacteria such as vaccines and drugs. The patent was approved last week 10 years after Stanford filed its claim.

Together with a broad patent issued in 1980 covering the basic method of splicing and recombining genes to create a recombinant DNA molecule, the new patent is expected to earn millions of dollars for the university.

Both patents are based on 1973 research by Stanley Cohen, professor of genetics at the Stanford university medical school, and Herbert Boyer, professor of biochemistry at the University of California, San Francisco.

Stanford and the University of California share revenues accrued through licensing of the patents. Cohen and Boyer have waived royalties to personal royalties, and the revenues are used for educational and research purposes at the two universities.

Dawn raid on Transkei students

from Carolyn Demster

JOHANNESBURG
Transkei security police took control of the University of Transkei (UoT) last week, hounding boycotting students from their beds in a dawn raid, baton-charging and assaulting them before arresting more than 200.

The 250 male students were arrested on Wednesday after a platoon of Transkei police, led by the chief of security police, Brigadier Leonard Kave, swooped on the UoT's student residences at 6am. According to the witnesses, men and women students were dragged from their beds and made to stand outside the hall of residence.

They were then baton-charged by the police and at least 250 male students were arrested. Women students told of their male friends being bundled into police trucks, some bleeding profusely from head wounds. Two students who were wearing glasses during the melee suffered severe eye injuries.

Transkei's commissioner of police, General Jabu Mantule refused comment on the raid, but it is understood the students who were arrested are being held in a police camp in Umtata.

The raid and arrests followed incidents on the campus when a meeting boycotting students ended in a scuffle with a crowd was involved in a scuffle with the principal of the university, Professor B. J. de Vries, and the academic registrar, Mr S. D. Mkhweni, who had been attending a meeting nearby. Professor Van der Merwe, who was crippled as a result of a fall last year lost his grip on his crutches and fell to the ground after being jostled.

Women students who were involved in the raid said police were intent on finding those who had "knocked the principal to the ground". The raid came just five days after the deportation of another two senior academics at Umtata.

Professor F. A. Grens, chairman of the staff association and professor of philosophy and Professor Andrew Beck, associate professor of law, had their work permits withdrawn by the Transkei authorities. They and their families were issued with deportation orders and were escorted out of the homeland.

This brings to eight the number of lecturers deported from the homeland since May this year, five of whom are professors. Possible reasons for the last two deportations are that both lecturers were outspoken critics of the loss of academic freedom and autonomy at Umtata.

Professor Grens in his capacity as chairman of the staff association called on members not to wear their academic gowns at a university function to mourn the loss of academic freedom.

After the deportation of professors Grens and Beck, it was announced that student discipline would henceforth be in the hands of the commission of police.

Eighty-five academics from the University of Durban Westville and the University of Natal signed their names to an advertisement in a Natal newspaper this week publicly rejecting the new constitution.

Background to the Umtata violence, page 12.

The issue beneath the issue

David Jobbins looks at the NUS approach to ultra vires and the miners' strike



Peter Heathfield: NUS general secretary



Phil Woolas: NUS president



NUS pickets at Pontefract

Nobody knows exactly how much money students have paid over to the miners in their dispute with the National Coal Board but the amount involved is sure to be a significant proportion of the National Union of Students' total support from sympathisers.

Most has been raised by voluntary means — collections, benefit discos and even a stall in the quiet Essex village of Withenoe. As such it is, according to the National Union of Students, perfectly legal and not in conflict with student unions' charitable status which generally prohibits use of public funds for political purposes.

But there have been a number of close shaves with the law — and Conservative students and others have lost no time in drawing instances of apparent ultra vires payments to the Attorney General, Sir Michael Havers.

Most have arisen from motions passed at general meetings and the NUS has been careful in guiding union officers who would be liable for the return of any illegal payments. NUS president Mr Phil Woolas said: "We do not believe student unions should deliberately break the law. Our advice is that the NUS should be supported in ways which will not get student officers into court."

This week in Brighton, Mr Woolas was discussing with NUS general secretary Mr Peter Heathfield how student unions could support the miners without getting into legal difficulties.

The talks sprang from an approach to the NUS from Mr Woolas, president of the University of Transkei, who was worried that both organisations might be caught in unwanted conflict with the courts through the over-enthusiasm of individual student unions.

Most unions are carefully following the NUS line, which is based on legal advice taken after the Attorney General, Sir Michael Havers, issued guidelines on the use of public funds last year.

The exceptions that have hit the headlines have fallen into two categories: some were based on mistakes or misapprehensions over the interpretation of the guidelines, which Mr Woolas described as "ambiguous".

At the two publicised cases of general meetings voting direct payments to the striking miners, at York and University College, Cardiff, sub-committees refused to authorize the action. Although both were included in the dossier under investigation by the Attorney General's office, they have essentially resolved themselves as no payment was made.

At York, the subcommittees resigned

and precipitated a ballot on their refusal to make the illegal payment, while at Cardiff the union president ruled that a move to sack the subcommittees involved for refusing to take an illegal step was unconstitutional.

And in the latest incident, the London School of Economics, subcommittee officers, this time a Liberal and an independent, are refusing to hand over proceeds from union fruit machines, estimated at at least £1,400 on the grounds that it is ultra vires.

The Labour leadership of NUS is not prepared to condone illegal use of public funds at a time it feels increasingly vulnerable to Government attack. It has consequently built up a fund based on property freeholds to enable it to ride out the cutting off of financial support which might arise if the Government hit the bullet of voluntary student union membership.

Sir Keith has had a succession of rough rides over his refusal to end automatic student union membership. At the last Conservative Party conference and at Federation of Conservative Students gatherings he has tried to

explain the difference between the closed shop in industry and the concept of the student union in universities and colleges.

His argument that there is an essential difference which makes action against the trade union closed shop practical and desirable while action against "compulsory" student union membership has failed to satisfy his critics.

The main objects of a student union are educational, social and recreational, he argues. While there are annual consultations with the National Union of Students over grants levels, and other "pay and conditions" issues, they are in no sense comparable with negotiations between a trade union and its members' employer.

But the distinction has been fudged not only by those on the right politically committed to the destruction of the NUS, but by forces on the left who have sought to adapt trade union norms and values to student conditions.

The more some students have tried to present NUS as a component of the

trade union movement, the more stridently its critics have pressed ministers to take action. They already have considerable support among Conservative backbenchers who have recognised the transition in NUS since the 1950s when the present minister for higher education, Mr Peter Brooke, was a vice president. They include not only the new breed of right-wing Conservative, but established figures such as Mr Ivan Lawrence, MP for Burton and a former vice president of FCS, and Mr Nicholas Wintererton, MP for Macclesfield.

As far back as 1978, Mr Wintererton used the 10 Minute Bill procedure to draw attention to what he described as the use of public money for "extremist and frivolous activities" in an "appalling misuse of funds".

The instances of flouting of the charities law are few and far between — the amounts involved small. But the real issues at stake is voluntary membership. The NUS leadership has much to gain in the propaganda battle by conspicuously advocating a responsible attitude.

Reading between the semi-quavers

Karen Gold reports on an unusual music degree

Did Mozart really hear his symphonies entirely in his head before he put even a note on paper? Why do some composers start writing their works from the end instead of the beginning? Is musical composition a problem-solving activity?

These are some of the questions tackled by Kingston Polytechnic students towards the end of their second year of a highly unusual degree. The BA in music education sits outside the mainstream types of music course in higher education: the potential performers' conservative music studies, and the traditional academic course in musical form, composition and history.

It does include both of those. But it also devotes a substantial amount of time — almost a third of the course — to looking at what music, as a human activity, actually is: the psychology of music.

Although testing of musical ability goes back to the 1920s and 1930s, extensive published work on the psychology of music has only gathered since the mid 1970s according to Cynthia Jones, senior lecturer in psychology in the polytechnic's faculty of educational studies, and responsible for the psychology of music element in the music education degree.

Even so it rarely appears at undergraduate level. At Kingston it is part of a complementary studies programme, designed to broaden the student's musical perspective and focus attention on "Man's response to music" according to the course brochure. It is an exploration of what music is and how — in progression from composer to performer — it is made.

Using that process as a framework is not as obvious as it might seem. Even music students tend to think of music not as a continually reinterpreted process but as something static, creating its effect on listeners either because of what it is — "minor keys are sad" — or because of what they are — a divorcee disliking the *Wedding March*.

Looking at what happens to music between composer and listener, focuses attention on rather different things from what the practical musician or academic musicianship student normally see.

Students study pattern of the brain's perception and attention, for example, and apply what they learn to their own and other people's composition, performance and listening. The result is a musical analysis, but in a psychological framework.

If that seems a long way from the "major of music" approach, so it should. Another effect of getting students to think about music as a psychological process is to demystify it. Music students arrive at Kingston as elsewhere with common stereotypes about what being "musical" means. By studying musical development from birth to adulthood, they are encouraged to reconsider them.

"The stereotype is that music is something you either have or you don't," says Ms Jones. "Either God gave you this gift or not, and it's well taught. But when they see the range of music skills that occur across a cross section of the community, they see children making music in school, and they see some of the changes that take place over time, it helps them to

challenge the stereotypes". Looking at musical development with the emphasis on birth to adolescence, is the area of psychology covered by students in their first year as they look at physical, cognitive and social changes in the child which affect performance and musicianship skills.

In their second year they begin by looking at how the brain functions: "to examine what we mean by music, and what the brain is doing when we hear a series of sounds — to give some insight into how we structure the stimuli around us".

The students do experimental work — for example in dichotic listening: putting different sounds simultaneously into the left and right ear — in considering theories about the relationship between music and the two hemispheres of the brain. They also look at theories about the relationship of musical ability to facility in mathematics and languages.

From the brain they move to attention and perception, looking at music across cultures — and twentieth century western music — to see the dependence of notions of what "music" is upon cultural background.

All that takes half the year. In the second half they move onto more overt studies: motivation and personality. Again looking at the transfer between performer and listener they consider whether a "musician's" or "artist's" temperament exists or is socially produced, and whether music inevitably arouses emotions directly relevant to the students as performers. They look at the way memory functions and also at ways of improving it when they are



Kingston students in the electronic music studio

learning pieces. They look at how individuals function together and in the music world — emphasizing that, although musicians might practise alone, they work in groups and with an audience.

Considerable time is spent looking at Cognition: the International Society for the Study of Tension in Performance was set up at Kingston in 1980. Although its brief now extends to sporting and stage performance, its base is in music and students are encouraged to attend its seminars.

In the summer term there is a series of symposia involving conductors, composers, performers, students and staff. It is here that they tackle questions like whether or not composition is problem-solving. They consider motivation: what differentiates a composer's motivation from a performer's?

Students do projects in their second year — in the past ranging from music with the mentally handicapped, to inventing "an aural tachistoscope" — a

The 1977 Christmas conference advised affiliated unions against making such ultra vires payments — but the temptation to act either in the heat of the moment or in calculated defiance of the law remained.

In 1980 the Treasury Solicitor warned Warwick University that it regarded two donations made in 1979, one to the Corby steelworkers' strike fund, as ultra vires.

The resurgence of the peace movement led to further complaints by Conservatives that public funds were being used to undermine government policy. They singled out in particular the use of union funds to bus students to anti-nuclear demonstrations.

It was such a complaint, against Bradford University, that is credited with spurring the Government into action. The allegations amounted to some £6,000 worth of hire fees either for peace or anti-nuclear demonstrations, and the Government was widely expected to take legal action despite an internal university report stating that the 29 instances reported were in line with the union's constitution.

The guidelines, when they materialized in October 1983, said little that was new. Their significance was that they were issued at all — and circulated to every student union in the country.

They reminded unions that at educational charities their funds could only be spent for the limited purposes permitted by law. While money could be spent on political debate, it should not go on support for political causes which had nothing to do with their members's education.

Sir Michael accepted that students might often wish to express a view on a current industrial dispute, for example. There was, in his view, no justification for using charitable funds in support of either side to the dispute — and this included the hire of coaches.

The guidelines added: "There is of course no objection whatsoever to students joining together to collect their own monies for a particular purpose for which union funds cannot be used. The Attorney General wishes to stress that the objection is not to student participation in activities outside the educational sphere, but to the use of charitable funds for purposes for which they cannot properly be applied according to the law."

The instances of flouting of the charities law are few and far between — the amounts involved small. But the real issues at stake is voluntary membership. The NUS leadership has much to gain in the propaganda battle by conspicuously advocating a responsible attitude.

In that year too they cover the social psychology of music — according to Cynthia Jones "exploring the notion of culture, and of culture as an indivisible shaper of what they have always taken for granted: that their choice has been shaped by the critic of the publisher. It's putting their music into the broadest arena of all. And it works."

It works in two ways. Students are certainly very employable at the end of the course: they go into music teaching, music therapy, administration, performing, even the BBC Radiophonic Workshop. But they also have an unusually detached perspective on their music: "People are attempting to get to an objective appraisal of what has always been a subjective experience. Because it helps to put music into a context, which is a social context, which is music in the world."

People from 19 countries with no written tradition met last weekend. Jane Pickard reports

Something to talk about . . .

Among the 5,000 languages in the world, a staggering 4,500 have no written tradition. Last weekend people who speak languages without a written tradition from 19 different countries met in London to discuss the problems they face and the latest ideas in tackling them.

The conference was organized by the Caribbean Communications Project in London and the National Gypsy Education Council.

Not surprisingly, there is much anger over the way that people with "inferior" languages have been made to feel incompetent, stupid and out of the educational system by those in dominant cultures.

Jessica Burke, who chairs the Caribbean Communications Project, tells a story of a man she knows who came to England as a boy thinking he spoke English, only to spend the first six weeks in school without understanding a word of what was said. His confidence dived and he was regarded by teachers and other children as stupid and unable to speak "properly".

The first thing Ms Burke explains to the adult literacy students who come to the project to learn to read school standard English is that their own speech is a language in its own right—not just "bad English".

She wants to make them feel positive about their own language and give them confidence before they start tackling the new language. "I use English Creole as a starter and play tapes of people speaking and reading stories in the language to give people an understanding of Creole," she explains.



The mother tongue is important for gypsy children

She then uses Creole as a bridge to lead to an understanding of reading: a spoken Creole sentence is written down, and the student then progresses to the standard English version.

Similar methods are being used with another, less well-known group of minority language speakers in Britain who, if anything, face an even greater problem.

Speakers of two languages on the Indian sub-continent—Sylheti and Kacchi—have no written tradition and have to make a second Indian language in addition to English if they are to produce written material which can be understood by relatives and others at home.

Dr Donald Kenrick, an expert in Romani from Hackney Institute, described how Sylheti-speaking children from Tower Hamlets are frequently faced with three new languages at the age of five when they start school. They have to master English at their state primary, Bengali at their special evening or Saturday school and Arabic as part of Moslem religious classes.

In Hackney, Dr Kenrick and his friends have introduced reading lessons in Sylheti, using the Latin alphabet, so that their own language can form a bridge to understanding written English.

They are stressing the value of the children's language and encouraging parents to continue telling tales and singing songs in Sylheti. In the past, many parents have stopped speaking

to their children in Sylheti once they start school, to help them learn English. Dr Kenrick does not think this is the right approach.

"If when you get to school your mother tongue doesn't have some role, you are going to suffer—and so is the country you are living in," he says.

Some of the best work in the field of minority language is going on in Scandinavia. In Sweden, all immigrant children have mother tongue instruction in reading and writing in their own language from their first year at school, which they learn alongside Swedish. In Norway, schools insist that the mother tongue instruction must come first and an enormous amount of learning material has been developed for Romani children as a result of this policy.

Mr Morgan Dalphinis, a worker on the Caribbean Communications Project, and himself a French Creole-speaking West Indian from St Lucia, made a series of recommendations to the conference for developing an understanding and wider use of Creole languages.

He believes Caribbean and African literature can be used as an examination text within which various aspects of Creole language and grammatical structure could be presented.

He also urged that teacher training should include a basic knowledge of languages and how they develop, covering Creole and non-standard English; while there should be first degree and masters level courses in Creole languages at university.

The acceptance of Creole as part of the culture of the Caribbean should become part of mainstream education in Britain and St Lucia, he told the conference.

But one problem which arises for educationists and others trying to put together reading materials and encourage the establishment of a literature is the huge differences within many of the minority languages themselves.

Dr Thomas Acton, vice chairman of the National Gypsy Education Council and senior lecturer in the sociology of social policy at Thames Polytechnic who jointly organized the conference, has also been looking at ways of writing down what he calls the "Anglo-Romani code", used by most gypsies in this country a mix of English and Romani.

The problem is that English and Romani can be combined within a person's speech according to whom they are addressing and what messages they want to convey. So what combinations of the two languages can be used for literature?

Dr Acton also believes that this can only be tackled by gypsies themselves writing their own literature. Their approach varies between attempts by a gypsy called Zilla Roberts to produce her own speech in writing and work by gypsy poets, Odley and "Lavengro", who use the English literary tradition and graft on to it some Romani language and experience.

He concludes: "Both of these seem viable literary enterprises to us. In the end, literature is justified by its effect on the reader, not by its grammatical correctness. It creates its own precedent, not the other way round."

Professor Ian Hancock, of Texas University, who is himself a gypsy and a leading expert on both Romani and Caribbean Creole, points out that while gypsies remain illiterate, they are also more cut off from the dominant culture within which they live.

Many gypsies value this isolation. But Professor Hancock believes that gypsies have survived in the past by adapting to their changing environment and nowadays this means learning to read and write.

And if they are going to learn to read and write, it is preferable that they should be able to do so in their own language.

Dr Dalphinis believes that the conference, in bringing together the experience of gypsy speakers, Creole and other people, has helped to provide new ideas for the education of people in this dilemma.

"For a long time literacy of the written word has been used as a condemnation of the non-literate. In this conference, the unheard voices of the international chorus of oral cultures have at last been heard in their own right," he said.



Students protest at the government crackdowns at Transkei University and other black institutions

Dilemma of the homelands

While most black universities in South Africa have earned reputations for repressive mediocrity, the University of Transkei (Unita) was meant to be something different. So it seemed to be—until the class boycott which started in May plunged the campus into crisis.

The explosion was the consequence of an attempt to establish an "open university" in a society created by apartheid. The result was a volatile student body and teaching staff, confronted with an administration and state likely to set them off. "It was inevitable that this would occur, given the way it was set up," says one Unita teacher.

The events at Unita, beyond their importance for its own future, graphically illustrate the dilemma of educational reform in South Africa: the well-trained blacks needed in growing numbers without stoking black student resistance as well. For academics overseas, they also highlight the dilemma confronting those considering teaching at institutions in the black homelands of South Africa: to collaborate or to challenge.

Unita's internal contradictions date back to its establishment in 1976, a decision which was more political than academic. In that year the Transkei, a region of southeastern South Africa between Durban and East London, became the first homeland (tribal reservation) to be declared "independent" by Pretoria. But the legitimacy of the new government was recognized neither by many of its four million Xhosa subjects, who had been stripped of their South African citizenship, nor by any state save South Africa.

Unita's decision to establish a racially open, English-medium university, and academic standards and international recognition, was a step in its search for prestige and response to the need to replace seconded white bureaucrats leaving the region after "independence".

Thus, though the Transkei is one of South Africa's poorest regions, roughly £20m (given by Pretoria) was spent on building lavish facilities for the university in Umtata, the capital. Its curriculum features the staple elitist disciplines of urban Western science, law, arts, and commerce, despite the overwhelmingly rural character of Transkeian society.

Nevertheless, Unita's academic staff contrasted favourably with those at homeland "bush colleges" under direct South African control, where staff are usually either mediocre, right-wing white Afrikaners or blacks of the ethnic group concerned. Many lecturers were recruited overseas, while South African staff included a diverse mixture of liberal or left-wing English-speaking whites and blacks.

An Oxford-trained Unita professor said: "Generally, the people here have academic qualifications which would have got them jobs anywhere else."

Due largely to its staff, the university became known as an oasis of relatively free thought. In a region where the government was notoriously harsh towards opposition, "The line put out here would be fairly mild compared to Witwatersrand," the

Craig Charney on the background to the explosive situation at the University of Transkei

Johannesburg stronghold of the white left—"but it is a hell of a lot more independent than the typical bush college," according to a Unita lecturer.

Sociology professor Herbert Vilikazi, for instance offered evening classes where thinkers such as Frantz Fanon were discussed. Teaching loads were heavy, hours long, and many students ill-prepared; but in compensation, staff taught what they liked, freely assigned books banned in South Africa, and found students hungry to learn.

Unita's 2,500-strong student body, though far less diverse than the faculty, also did not fit into a "bush college" mould. While a clear majority of its students were Xhosa-speaking Afrikaners, it received more applications than it could accept from African students outside the Transkei who preferred it to their tribal universities. Despite serious language and housing problems confronting students, many found Unita's atmosphere a liberating one. They worked hard to overcome their handicaps and received their first contact with ideas outside the conservative official ideology.

However, the independence of students and teachers at Unita rendered the atmosphere combustible. The Government is unpopular there and the university itself suffers from the same problems which have been documented for most Transkei institutions: arbitrariness, corruption, and the inability to accept challenges from below. But precisely because Unita was relatively sheltered, challenges to the authorities could burst out more freely than elsewhere in the Transkei where control was stricter.

Disquiet deepened last year, when several senior faculty members, including Professor Vilikazi and psychology professor Nico Cloete, urged an inquiry following rumours of large-scale financial corruption on campus. The probe found that a "complete collapse" of the accounting system had permitted major abuses. But the halting of the inquiry soon after Professor van der Merwe returned from sick leave, and the resignation of the vice-principal who initiated it soon after, fed suspicions of a cover-up.

There was also a history of conflict between the authorities and students even before the recent blow-up. In 1980, the students joined South Africa-wide class boycotts, precipitating a brutal riotous from the state. In the following two years, student councilors were co-opted by the administration rather than elected. Subsequently, when students planned a march to commemorate the death in detention of student leader Steve Biko, Professor van der Merwe refused permission. "This year, student leaders say, he walked out of more than one meeting at which they tried to present student grievances."

The temperature was thus rising, its explosion was finally provoked by a speech prepared by Professor van der Merwe for delivery at graduation exercises on May 5. In the printed text, he accused two teachers by name, including Professor Vilikazi.

The text leaked out beforehand and angry students responded by distributing a pamphlet at the graduation attacking the principal and accusing him of corruption. Five days later, for members of the student council was taken in university transport to the Transkei Security Police for interrogation about the pamphlet.

Though they were only held for a few hours, during that time students launched a class boycott to protest at the harassment of their representatives. A conciliatory approach could have saved the situation, but the Unita and Transkei authorities drew a hard line. Police cleared the campus with a baton charge on May 11. Afterwards, six social science lecturers were deported amid approval claims by Transkei officials that they had "incited students".

Many at Unita believe the administration had a hand in the crackdown, despite denials by Professor van der Merwe. As evidence, they note that the baton charge occurred shortly after the expiry of an ultimatum from the principal warning that boycotting students would be "removed". In the case of the deported lecturers, the only common denominator colleagues could discern was criticism of Professor van der Merwe. And one lecturer said the security police search of the student council office.

Subsequently, academic staff voted unanimously for suspension of van der Merwe and the registrar, while the Unita council closed the university from late May to early July. During the respite, the administration made an attempt to negotiate with student leaders, who were compelled to go to ground when security police came looking for them.

The risk of being called sharply to order—and perhaps deported—must be taken into account by lecturers who consider responding to overseas recruiting drives by homeland universities in South Africa. Such institutions were set up within the confines of apartheid, and their ability to admit challenges to it is limited. Their teachers walk a tightrope, endangering their posts if they lean too far left, falling into collaboration with homeland governments if they flinch themselves to producing bureaucrats.

On the other hand, institutions like Unita seem set to remain part of South African higher education for some time to come, and thousands of students anxious for new ideas. At a recent conference of left-leaning sociologists in Johannesburg, much sympathy was expressed when a call from a prominent black academic for anti-apartheid whites to teach in homeland universities was read. He urged them not to "throw in the towel and scurry to their private homes," but "abandoning such Afrikanerdom." The appeal was written by none other than deported Unita professor Herbert Vilikazi.

James Dunn inspects New Testament research and gives a theological surveyor's report

The study of Christian origins and of the New Testament is an indispensable part of fundamental research within the European academic tradition. Like a lot of other things, Christianity is one of the foundational and cornerstones of our Western history, society and culture, as evidenced in its literature, art and music, and not least in its system of personal and social values. And the New Testament is the indispensable foundation of Christianity, the constitutional documents of the Christian faith and the only real access we have to Jesus of Nazareth and the formative period of Christian beginnings. The testing of such foundations is a necessary and an ongoing task for a seat of higher learning: to check with each new generation of instruments and expertise what weight the foundations were intended to bear and whether they still bear the weight put upon them; to test whether the battering of centuries of use and abuse has shifted the superstructure out of alignment to any significant degree.

In the past 10 years or so there have been several important developments which have provided fresh impetus by opening up new perspectives and re-evaluating old concerns. They do not represent the full range of current research in this area by any means, but they do give some idea of where the discipline is and where it is headed.

One of the most invigorating of recent developments has been the re-emergence of a sociological approach to the New Testament and to Christianity's beginnings. It is clearly important to remember that in the first century of Christianity we are not dealing with an aggregate of individuals, but with groups and communities, whose internal relationships and relationships with their wider social context cannot be understood simply in theological categories—where theological categories cannot be understood without taking that social context into account.

For example, the various problems which confronted the apostle Paul at Corinth are not to be treated solely as theological disputes; economic and social factors also played important parts. The formation of the earliest Christian communities becomes clearer when we not only inquire into the types of community which were viable in the various particular circumstances of the first century Graeco-Roman world, but also bear in mind twentieth century insights into the dynamics of group formation, including such factors as the role of rituals and the definition of boundaries. Concepts of leadership and exercise of authority in the first century can gain illumination from modern perceptions of how legitimacy is accorded and power functions in social groupings. Those within the discipline who have tended to treat New Testament texts as though they were purely literary phenomena need to recall the sociology of knowledge, that language, including theological language, should never be regarded as independent of other social realities.

There are some dangers, of course, of New Testament specialists adopting sociological tools and theories in an uncritical way. For example, the danger of reducing the complexity of the earliest Christian data by imposing on it some theoretical grid which blanks out unaccountable factors (the Holy Spirit?). Early Marxist descriptions of Christian beginnings can certainly be faulted here. Or the danger of thinking that by translating the data into different terminology the enterprise has somehow been advanced. The fact that the apostle Paul and Max Weber both use the word "charisma" creatively should provide an opportunity for dialogue between the usages, not for the latter to swamp the former.

One of the chief values of adopting a sociological perspective however is that it helps prevent theologians falling prey to their own form of reductionism. It forces us to keep asking questions which prevent imposing one-dimensional interpretations on our multi-dimensional records.

To those concerned with the clash and interaction of cultures, the emergence of Christianity provides a classic case of a movement which expanded and began to find itself precisely at the interface between Judaism and a wider Hellenistic world—a test case where interdisciplinary cooperation could well provide insights of continuing value for the cross-cultural dialogues and encounters of today.

Perhaps the most important development in recent years has been the reappearance and re-focusing of the



The Four Evangelists by Jacob Jordaens. From the Louvre.

Testing the foundations

question of the relationship between emerging Judaism and emerging Christianity in the first centuries of the common era. Several factors have contributed to this. The Dead Sea Scrolls, first discovered in 1947, have given us a completely fresh and hand appreciation of different strands within first century Judaism. Fresh documents, including such factors as the definition of boundaries. Concepts of leadership and exercise of authority in the first century can gain illumination from modern perceptions of how legitimacy is accorded and power functions in social groupings. Those within the discipline who have tended to treat New Testament texts as though they were purely literary phenomena need to recall the sociology of knowledge, that language, including theological language, should never be regarded as independent of other social realities.

All this has enabled us to break through some of the older stereotypes which dominated New Testament research in earlier years. For example, first century Judaism was regularly described as "late Judaism", its chief significance being presumably that it served simply as the precursor to the Christian beginnings. To describe the Jewish literature of the 300 years between 200 BC and AD 100 as "inter-testamental" imposes on it the same Christian perspective, as serving principally to fill the gap between the Testaments of the Christian Bible. More important, we can now see very clearly that first century Judaism was not a single homogeneous entity, but a diversity of different emphases and attitudes centred on a core of common loyalties and practices. Set against that diversity, the ministry of Jesus and the emergence of Christianity come into sharper focus.

As a result, several old questions also need to be posed afresh. What was it that Paul objected to in the faith of his fathers? Despite a strong tradition

of Protestant exegesis, we can now see more clearly that first century Judaism was not a coldly legalistic religion. So what was at stake in Paul's insistence on justification by faith, not by works of law? Again, if Judaism in the first century was diverse, how much more diverse was the Judaism of the diaspora? Some of the standard generalizations in this area too have been called into question. To what extent then was the Christianity of Greece and Asia just another form of diaspora Judaism? And if, contrary to the usual assumption, rabbinic Judaism was not the only form of Judaism to survive the disaster of the first Jewish revolt (AD 66-70), how did Jewish Christianity fit into this continuing broader stream? Here too the Jewish and Christian traditions need to be seen as mutually interpretative and not simply the one as a foil for the other.

Such issues have more than merely antiquarian significance. The relationship between Judaism and Christianity and continues to do so. And both religions regard this formative period as of normative significance in one degree or other.

A third area of lively interest is the continuing challenge of analysing the history of the traditions which make up the Gospels of the New Testament. For over 200 years biblical scholarship has played a leading part in the devising and testing of tools and methods of critical analysis, often with results of wider relevance to its own and other literary and historical disciplines. But at present, opinions are quite sharply divided and so strong a consensus is in view.

Most research energy is being devoted to redaction criticism—the attempt to illuminate the concerns which gave the Gospel traditions their shape in the later stages of the process of transmission. After an initial spurt, however, it is probably fair to say that the enterprise has become lost in the mists of ambiguous evidence, ill-defined method and inadequate criteria.

It was not hard to recognize that individual Evangelists have different emphases and present Jesus' teaching each in a different light. Matthew's rather conservative presentation of Jesus' attitude to the law is a good example. But the bulk of the material is much less clearcut. How can reliable distinctions be made between, for instance, a motif taken over from tradition by only one of the three Synoptic Evangelists, a motif reworked by one and extended differently by another, and a motif introduced wholly by one or other Evangelist? Reconstructions which depend on too many hypotheses where the evidence is patchy of several more or less equally plausible interpretations can scarcely be expected to win much support.

Partly by way of reaction to an influential fashion in Gospel research which focused on the discontinuities of the tradition, there has been a recent renewal of emphasis on the continuities of the tradition. On common-sense a priori grounds, it was always most probable that the creative figure at the source of the Gospel traditions was Jesus himself. It is equally likely that these earliest memories of what Jesus did and said provided a check on the development of the tradition—not by stifling the creative reuse of the tradition, but by ensuring its harmony with the authentic character and emphases of the earliest formulations.

Of complementary significance is the whole question of the oral character and form of the Jesus-tradition. Too much history of tradition analysis has been posited on the assumption that the only model to be used is that of editors working with written traditions and literary sources. Those who have pointed out that the Jesus-traditions were being passed on in largely oral communities have been too little heeded—largely because the model appealed to (the formal transmission of tradition in rabbinic circles) was too narrow. But in oral communities tradition is passed on in different ways, not least on occasions of celebration, when

the tradition is recited in a "commemorative performance". In such performances the constants are less likely to be individual units or complete blocks of material, but rather regularly recurring phrases, core formulas and larger thematic motifs, which can be given greater or less elaboration as occasion demands and inspiration allows.

The discipline still awaits the scholar who can draw together the strengths of each of these approaches in a convincing analysis of the history of the Jesus-tradition.

A final area where controversy is if anything even more vigorous is that of hermeneutics—the challenging task of interpreting the New Testament writings across the chasm of the centuries to the very different cultures and world views of the late twentieth century. The most recent phase has been marked by a certain disenchantment with the historical concerns which have so far dominated the present survey.

Such disenchantment is a feature of the current strongly revived Bible as literature movement. A many faceted movement, its common rationale is the insistence on treating the text of a New Testament document as a literary work in its own right—not as a window to be looked through for historical or theological information, but as a literary entity to be looked at for its own sake. Many of its emphases are very welcome—not least the insistence on treating the text as it is, not some hypothetical Vorlage, on literary structure as a key to understanding, and on the involvement of the reader in determining a text's meaning.

Less welcome are the attempts to set such literary critical concerns in opposition to historical critical concerns, to treat the text as though it was a wholly autonomous entity. It is true of course that some literary structures are less dependent on particular historical contexts for their meaning and impact—it is no surprise that most of the work so far has focused on the parables. But for the bulk of the New Testament writings, historical context is critical in determining meaning. And the meaning intended by an author (which exegesis can usually uncover with a fair degree of precision) must be allowed normative force in relation to other interpretations of what still remains first and foremost his text.

A somewhat similar criticism can be levelled at the revitalized fundamentalism of the biblical inerrancy movement. The insistence on the errancy of scripture is in reality an attempt to excuse or ignore the historical relativity of the biblical documents. The harmonized message of the Bible is achieved by abstracting the writings from their original life settings. Abstracted from the diverse emphases of different historical particularities, the timeless gospel in consequence is robbed of too much of its potential to speak to the different particularities of today.

The fact remains however that the biblical writings have a twofold character—as historical traditions conditioned by all the relativities involved, and as religious documents whose influence has extended far beyond their own time and culture. Biblical scholarship will never progress very far if these two aspects are not held together in creative tension. The New Testament writings do not merely provide historical information about the past; they are themselves the subject matter of theology in the present. Even at the level of a purely historical enterprise, the purely historical fact can never be set aside that these writings were treasured from the first as speaking with an authority which is more than merely human.

And a large part of the historical and hermeneutical task is so to enter empathetically into the mind of the author and the situation of his first readers that we today can begin to appreciate the original impact of his writing and experience something of that impact for ourselves. To combine a properly critical approach, critical of one's material, of one's tools, of oneself, with an openness to the subject of one's investigation and the reality it bears witness to—that continues to be the ideal in New Testament scholarship. But then that is the ideal of all scholarship, is it not?

This is an abbreviated version of the author's inaugural lecture as Professor of Divinity in the University of Durham. The full text, *Testing the Foundations: Current Trends in New Testament Study*, is published by the University of Durham, price 50p.

Ernest Boyer

Observers tune in to the confusion of campus life

After a sustained and vigorous debate about the quality of schooling in the United States, the spotlight is beginning to focus on higher education. Although Americans are justifiably proud of their centres of advanced learning, there is great unevenness in educational performance from one campus to another. Some American colleges and universities rank with the finest in the world; others do not deserve pass marks. On many campuses there is little agreement about what should be taught and about what it means to be an educated person.

Indeed, it is startling that college educators expect school people to define goals and clarify academic content while they themselves often seem confused about these central issues. There is disturbing evidence that college students are not well informed about the world in which they live; that they are becoming more parochial at the very time the human agenda becomes more global; that many students lack historical perspective and have little knowledge of significant social trends that will shape their lives.

Many observers are also troubled by the quality of campus life. What happens after the lecture or lab may be just as important as what happens in the classroom. Yet, on some campuses, there are few activities outside the lecture hall that bring students and faculty together, except perhaps athletics. More contacts are needed. They provide occasions for education to reach across from the professional to the personal, from the academic life narrowly defined to a larger view.

During the 1960s, most American colleges loosened campus rules and regulations that sought to govern student conduct. The notion of *in loco parentis* was abandoned. In response, guidance and therapy centres were established to help troubled students. Within 20 years, the American college has become less a parent and more a clinician.

Among the faculty, frustration mounts. For many, it is increasingly difficult to gain tenure, not only because too many candidates are trying to fill too few positions but, also, because financial support for research and scholarship, except in the natural sciences, has been reduced.

Economic considerations seem to shape decisions on the campus. Irving Spitzberg, former general secretary of the American Association of University Professors, spoke recently of low faculty morale. "There's a perception that things are pretty bad and getting worse."

Traditionally, our colleges have sought to prepare a selected group of young people not only for productive careers, but to live lives of dignity and purpose. They were called upon to educate leaders who could weigh decisions wisely and promote the public good. Most of all, they were expected to create a climate in which the values of the individual plus the ethical and moral choices confronting society could be thoughtfully examined.

Today, these purposes still may be printed in the catalogue and proudly recited at commencement. But throughout the year the reality is quite different. Caught in a scramble for students many colleges are desperately marketing new programmes.

Such fields as English, history, the fine arts - which were at one time a stronghold for degree candidates - are

overshadowed by curricular offerings that have immediate utility and payoff in the market place.

Since 1973, the proportion of college freshmen choosing fine arts as a probable major declined by 71 per cent. And those selecting history dropped by 65 per cent. During the same period, freshmen selecting engineering as a major field increased by 84 per cent while the percentage of freshmen planning to major in English declined by 40 per cent.

During the past five years the proportion of new college students intending to major in computer science and data processing has increased by 206 and 39 per cent respectively - to nearly one in every five students. Technical degree programmes during the same period have increased in popularity by 39 per cent - to nearly 10 per cent of all major fields of study.

In response to these revealing trends the Carnegie Foundation for the Advancement of Teaching recently announced a major study to examine the American college in transition. Our goal is to look at the experience of millions of students who each year move from school to college.

We will explore the meaning of the undergraduate experience and evaluate what colleges add to the education of high school graduates by the time they, once again, assemble in caps and gowns to receive diplomas.

To get a firsthand view of campus life, a team of observers will visit 30 institutions during this autumn. Spending about three weeks on each campus, they will talk to students, faculty, and staff members, sit in on classes, visit student lounges, eat in cafeterias, and attend informal college functions.

The Carnegie Foundation will also survey thousands of students and faculty at representative colleges and universities all over the nation. This will provide information about the composition of the national faculty and student body, about their personal goals and college experiences, their future plans, their evaluations of their institutions, and attitudes toward specific educational and social concerns.

American education should be a seamless web. There is an urgent need to bring colleges and universities more directly into the national debate about purposes and goals. What happens to students in the early grades profoundly affects higher education, and what America's colleges say and do inevitably shapes the nation's schools. The curriculum confusion in the first years of formal education reflects, at least in part, the confusion at the collegiate level.

If the push for excellence is to persist, it is urgent that the nation's colleges and universities also ask hard questions about the purposes and quality of their work. This urgency is rooted not just on the campuses but in society itself; in the need to improve the education of the next generation of citizens and leaders.

Defending African studies

On September 19 the African Studies Association of the UK meets at York University for its biennial conference. We shall be discussing *Africa since Independence*, our way of celebrating the rough coincidence of our own twenty-first birthday and the coming-of-age of many of the continent's new states.

Some might think this task disheartening: memories of Amin and Bokassa, of civil war and natural disaster, linger in the public imagination. We shall certainly be scrutinising the political, economic, social and environmental woes of Africa, but we shall also take the opportunity for some serious introspection. What has become of African studies since the heady days of the 1960s when our subject blossomed in the excitement, publicity and promise brought by independence?

In the post-war decades considerable importance was attached to area studies, the attempt to convene a variety of mainly social science disciplines within the context of particular global regions. Government commissions - Hayter, Parry - contrived policies for the specific study of Asia, Africa and Latin America. This was stimulated by an expansionary mood in the world economy, by an adventurous interest in the less developed countries, and by a pragmatic concern that the welfare of our small country would depend on closer involvement in, and understanding of, the wider world.

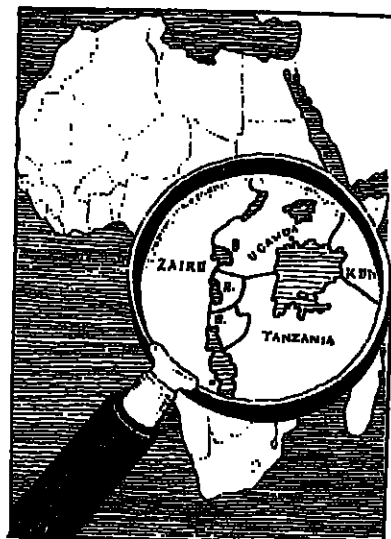
Recession and the consequent assault on higher education have changed all that. Rather than judicious pruning, a frenzy of cost-cutting ensued which had very little to do with intellectual virtues and vices. Vague Darwinian notions that the fittest might survive have yielded to an awareness that much irreparable damage has been done. Such policy as there has been has favoured short term material advantage, and promoted extremely parochial judgments about what is academically valuable. It is hardly surprising that the wicked social sciences should have sustained heavy casualties, and that development studies should be considered an unaffordable luxury. But the losses in area studies have drawn legs, as might be thought they may, in the long term, be greatly regretted.

The organization of African studies in the UK has made it very vulnerable to indiscriminate cuts. There are two distinct institutional patterns: in a few universities (e.g. London, Birmingham and Edinburgh) there are specialist centres or departments of African studies with full-time staff and degree courses. But the majority of "Africanists" are dispersed throughout a range of disciplinarily-defined faculties and departments, and contribute regionally specialized components for degrees in, for example, economics or natural resources. In universities like Cambridge and York, there are centres with small staffs which serve as foci for this network of African studies. Elsewhere, especially in the colleges and polytechnics, there is a large number of people who have a secondary responsibility for teaching African subjects.

While the specialised centres have been heavily affected by cuts since 1981, the effects on the more dispersed pattern of African studies have been more difficult to observe, but no less drastic.

Before the July 1981 round of cuts took effect, a process of attrition had already set in. Since the mid-1970s there has been a decline in funds for African research, especially those made available by the Social Science Research Council. In 1977, 2.3 per cent of the SSR's budget was devoted to African studies, but by 1982 this share had dropped to 0.8 per cent. The specialised subcommittees which used to attend to African affairs have been swallowed up into the present amorphous "Environment and Planning Committee". Lack of research funds has obliged many teachers and students to turn their interests elsewhere, to domestic or more narrowly "theoretical" issues.

Our inquiries have revealed a particular problem: a large component of Africanist staff acquired their training and experience in the 1950s, and long-established teaching posts in the early 1960s. This cadre is now ripe for early retirement, but their loss is not being made good, particularly in those academic institutions where the network of African studies is not being defended as a priority in the face of



stringent competition. For example, the University of Salford recently counted 17 staff members with a teaching or research interest in Africa: of these, four have taken early retirement, two are now on short-term contracts, three more are likely to retire imminently, and the prevailing insecurity threatens others. Those Africanists who remain are heavily involved in administration and in resisting the onslaughts - to the detriment, it might be said - of their active involvement in African affairs.

Our direct involvement in teaching and research in African countries is being diminished. It is plain, for example, that the degree of linguistic competence, nurtured by the Colonial Civil Service and firmly established in African studies in the 1960s, has dropped sharply. But so too has the teaching and use of European languages in Africa, while regional or national languages have become increasingly important. There is a greater need for our research students to work in the vernacular, but restrictions of money and time rarely allow them to acquire effective linguistic skills.

Our academic relationships with Africa have suffered. We can no longer supply visiting teachers and examiners to African institutions which need our services - we are hard-pressed to run our own programmes. We can offer fewer opportunities to academic visitors from Africa, and the restrictions on African students wishing to come to Britain have been too well publicized to need elaboration here. And we are always aware that anything to help from Africa itself, that poorest of continents, is an absurdity, as well as a betrayal of our historical responsibilities.

It is hard for those of us who see the value of African studies as entirely obvious to consider how we might justify our interests to the sceptic. These interests arise from the very old and very strong bonds between Britain and many of the countries of modern Africa.

There are two kinds of reason for continuing to study Africa: the intellectual and the pragmatic. Prominent among the former is the fact that over several decades our empirical concern with Africa has enabled us to convene a wide range of disciplines in the processes of research and teaching. It is now generally acknowledged that interdisciplinary area studies achieved a minor revolution in the social sciences during the 1960s and 1970s. Many important ideas and methods, subsequently applied to the study of the Western world, were pioneered by Africanists in Africa: the interpretation of ethnicity, of human origins and migrations, and of the structure of language, mythology and oral history. All these are examples of our particular style of collaboration, and our enthusiasm for transcending disciplinary boundaries. Will the kind of disciplinary retrenchment which is now taking place produce a similar flow of ideas and experience?

We might heartily like the rising generation of Africanists lacked our empirical enthusiasm for African affairs. But there are reports of fully and over-subscribed courses in those institutions which can sustain them. With other areas to choose from, students are gravitating to interdisciplinary programmes and special courses on African history, geography, sociology or literature. Afro-Caribbean studies at Kent has seen a threefold increase in student applications over five years. Twenty-five final

year undergraduates at Lancaster recently completed a specialist course on "The foreign relations of Africa states". Graduate students in Cambridge started their own seminar series on "Society and Economy in West Africa" two years ago. It is resources, not enthusiasm, which is lacking.

The long experience of African studies in Britain has given us many advantages which are lacking in, for example, the United States. Indeed, over three decades we have supported North America with some of its leading Africanists. Our reputation is acknowledged globally, but we need funds to sustain this.

It is particularly sad that important recent initiatives in secondary schools and adult education programmes, notably experiments with new GCE and JMB syllabuses promoting studies of the third world, will receive less support from the universities and colleges than they need. As the director of London's thriving Africa Centre recently remarked, there is a "yearning for African studies" among the black population of this country, a desire to know about topics of "contemporary use and interest", to which Africanist throughout the country have done their best to respond.

Many would regard this as one of the most important pragmatic concerns of our subject. However, it would be a mistake to assume that the function of "multicultural studies" is simply to make inner-city life more tolerable or manipulable. In these uneasy and economically strained times, the arguments against insularity and for open-mindedness need emphasis. We to imagine that a useful understanding of the wider world will present itself to us without a conscious investment of time, effort and resources, is plainly mistaken.

Whether our main motive is the security and prosperity of our own population, or a humanitarian concern for a continent of underprivileged people, the advancement of African studies should be a matter of active, not just passive interest. By the London convention the countries of the EEC have insisted on a special relationship with Africa, as the continent closest, and in so many respects dependent on Europe. In France this has provided a conscious stimulus for the development of African studies, and two years ago our association became a founder member of the new European Council for African Studies. We have much work to do - conspicuously, developing our library and teaching resources, and our first-hand knowledge of the Francophone and Lusophone countries.

African studies in the UK has been losing personnel and resources at a pace, and for reasons, which are quite unrelated to its intellectual and pragmatic value. This attrition must be stopped, but it will require specific and resolute intervention. Our pressure for a new Hayter-style inquiry into African studies has so far had a sympathetic hearing, but unless such a review is undertaken soon a great deal of irreparable damage will have been done.

We must ensure that specific support for African studies is established in the University Grants Committee - in grant-awarding bodies like the SSRC, and in every organization which has it in its power to influence the future of our branch of learning. In the universities and colleges we must insist that African studies cannot be subsumed adequately within other, conventional disciplinary rubrics. Too often it has been allowed to slip down the interstices.

We must insist that African studies cannot be pursued unless direct and active links with Africa are sustained. Just as the natural sciences have their distinctive costs, so we need the resources to visit and work in Africa, to bring African students and teachers here, and to send our students and researchers there.

African studies in the UK was built up by enthusiastic and persistent work, and the careful construction of friendships and working relationships on this great continent. We can spare what has been achieved very quickly. Or we can apply our efforts to make good the damage which has been done, and to resist further wastage and attrition.

A. F. Robertson

The author is president of the African Studies Association of the United Kingdom.

Bryan Taylor and Elizabeth Taylor on numbers and standards in the universities of the 1990s

The production line

It is common sense that any decline in the numbers of candidates for admission to the universities may be accounted for by a decline in standards. This article suggests a method for exploring the relationship quantitatively.

Institutions have not been very successful in attracting students in recent years. At best there has been slow growth in the proportion of the population seeking higher education, and that expansion has been due to increasing candidature by women. In many parts of the world there has been a real decline in the attractiveness of higher education. The reasons offered for this dissatisfaction have been many but Tribe was in little doubt when he wrote in 1975:

"... many pupils perform the service of many teachers... that their unskilled and uneducated parents are earning more money than their pedagogues..."

Others have suggested that the proportion of the population participating in higher education is, in part, determined by their perception of the rewards offered by society for that participation. The long lead times involved in allowing market forces to determine demand and supply in this way must engender anxiety about the future satisfaction of social demands for skilled manpower.

In broad terms higher education is positively driven by demands from sixth-formers and their advisers, with signal exceptions where manpower planning or special interests restrict the satisfaction of demand. If this generalization continues to hold in the future, the demand for training in particular subjects may be more immediate than any consideration of Age Participation Rates and Qualified Participation Rates.

Over the last two years there has been a perturbation of trends because of university and University Grants Committee reactions to Government restrictions, hence forecasts will be precarious.

The absolute reduction in entry numbers in 1982 and 1983 is likely to be repeated in 1984 as a direct consequence of governmental demands for a reduction in student numbers. Although it is the total university population which has to be reduced, the major flexibility available to universities to achieve this reduction in recruitment to the first year. Hence there will be a reduction in the numbers of graduates in three or four years' time. This is, of course, quite contrary to the wishes of the Secretary of State for Education Sir Keith Joseph who would prefer an increase in the number of technology graduates.

Not all first year entrants in Table 1 were part of the candidacy population shown: it is not possible to determine the exact correspondence because of the nature of the tabulations published by the universities central council in admissions. Furthermore, forecasts would be most valuable if they could be based upon the most recent data, and these are the very data which show the greatest volatility.

The polytechnics cannot be disregarded entirely in this analysis because they are included in the Department of Education and Science population forecasts and it is probable that most of the disappointed or not-at-all candidates in a polytechnic. This implies that the polytechnics are a valuable buffer to university recruitment, coping with overflow demand. There are suggestions that the majority of students in polytechnics would have preferred to enter a university but they were inadequately qualified for university. High levels of unemployment may be inducing an increasing proportion of potential students to opt positively for entry to polytechnic courses as being more in keeping with their vocational objectives.

In any period of retrenchment, given political support, the universities will survive by recruiting to capacity with other forms of higher education bearing the brunt of any run-down. The possible consequence of this tendency is that the universities may be

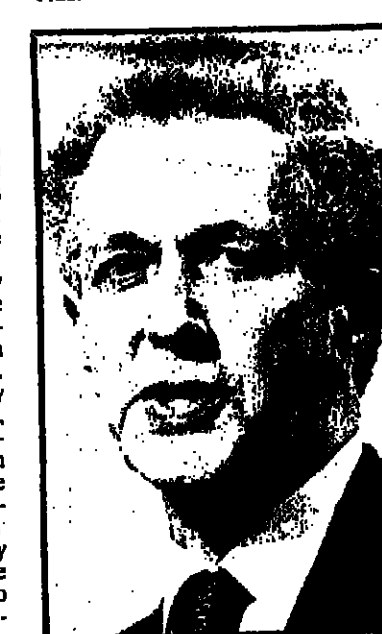
forced to lower their demands in terms of entry quality.

In short, if the electrical engineering industry can absorb an output of say, 2,500 graduates a year from the universities, it seems likely that this output can be sustained. The industry still benefits from the overflow production which is vulnerable to any reduction in demand for higher education. Although this paper concentrates on graduate production by the universities, the remaining graduate production by the public sector cannot be disregarded.

Table 1 indicates that only about 50 per cent of candidates for admission are accepted - the other 50 per cent are inadequately qualified, unable or unwilling to enter university. Hence, if there were a 50 per cent drop in the size of the 18-year-old cohort, it may still be possible to sustain the same throughput of university students by reducing entry standards and influencing the other reasons.

In spite of the uncertainty in trends in total higher education population terms, consideration of a single subject (or limited group of disciplines) may nonetheless point the way to the future.

Table 1 showed the numbers of "home" candidates per year seeking entry to read electrical engineering in British universities. Over the same period there has been a significant growth in the 18-year-old cohort and it is helpful to remove this demographic effect. Figure 1 shows the number of "home" candidates per 1,000 18-year-olds.



Sir Keith: would prefer increase of technology graduates

It will be seen that electrical engineering recruitment shared the consequence of the relative version of 18-year-olds to sciences and technologies until the mid-1970s, following which it has enjoyed a relative resurgence in popularity. Over the last few years, its popularity has "stabilised" at about 6.2 candidates per 1,000 18-year-olds. Inspection of the figure will not yield much of a clue as to whether this stability is transient or not and if changes, will it go up or down? The most recent points in Figure A hint that we have just passed a peak in popularity.

Clearly, if the relatively steep rise over the preceding eight years continues, the demographic decline will have little impact on recruitment to the subject - if we have passed a peak in popularity on the other hand, the downturn will be compounded with the demographic decline and the industry would have cause for concern. This argument will be continued below.

A given number of candidates in a year will have a range of A level scores (A = 5, B = 4, C = 3... and so on, subject to UCCA caveats). If entrants are selected such that only 50 per cent are admitted, on average only the top half of the A level range will be admitted. These entrants will have a "mean-

grade" of A level. Common sense suggests that the larger proportion of candidates admitted, the lower will be this mean grade. This is illustrated for electrical engineering in Figure B. The correlation between the percentage of candidates admitted and the mean-grade of entrants is very high (p < 0.001). All UCCA subject categories explored show this sort of relationship as might be expected, but electrical engineering has the highest level of correlation.

The most recent coordinates for Figure B (1982 entry) were mean-grade A level at 11.5 and 43.0 per cent of candidates were admitted.

The relationships in Figures A and B can be coalesced with the forecasted numbers of 18-year-olds so as to extend Figure A to 1999 as is illustrated in Figure C. There is a "trade-off" between numbers of entrants (and by implication of graduates) and their entry quality. Suppose that the capacity and resources of schools of electrical engineering in British universities are adequate for the throughput of 2,700 "home" entrants, the capacity will be filled by reducing entry standards as necessary. There is a lower boundary of acceptable standards, but it is unlikely to be reached in electrical engineering by the end of the century - although it will be in some other subjects. This comment begs a question but the principal objective of this paper is to invite a critical appraisal of the methodology rather than its conclusions. There will be a comparative paper in due course.

The regression line for Figure B (via an arcsine transformation) is: $\text{mean-grade} - 20.87 = (\sin^{-1} \sqrt{\frac{\% \text{ of candidates admitted}}{0.234}})^2 \times 100$

Hence, a mean score of entrants of 9.0 A level points implies the admission of 59.9 per cent of candidates. If there is capacity for 2,700 "home" entrants, the actual number of candidates will be therefore: "home" candidates = $2,700 \times 100 / 59.9 = 4,508$.

Supposing this relates to the entry year 1995, when there will be an estimated 638,000 18-year-olds in Britain, it will be appreciated that there will need to be: $4,508 / 638 = 7.07$ candidates/1,000 18-year-olds.

As with all regressions, there is uncertainty and the 95 per cent confidence limits are from 6.80 to 7.36 candidates/1,000 18-year-olds.

Figure 3 illustrates the use of these arguments for mean-grades of intakes from 7 to 11 points, given an intake of 2,700 annually. The vertical bars represent the 95 per cent confidence limits for each line. It will be seen, for example, that to sustain a mean-grade of 11 points a higher proportion of 18-year-olds has to be attracted than has hitherto been achieved.

Suppose the relative popularity of electrical engineering remains constant at about 6.2 candidates/1,000 18-year-olds and there are 2,700 entrants per year, the average A level points of entrants could remain better than 10 points until about 1989, drop to nine by 1992 and to eight by 1994. The problems of employers will not be relieved by seeking to escape their shortfall of graduates by an approach to the public sector, because the mean-grades decline will be accompanied by a reduction in entrants to electrical engineering outside the universities.

If the industry needs the output of 2,700 entrants with the average calibre associated with a mean-score on entry of nine points, it had better start influencing the trend in Figure A so as to insulate itself from the effects of the demographic decline. In a nutshell, the industry will get what it pays for and it would be unwise to postpone the inducement until driven by necessity because of the long lead times, it will then be too late.

Bryan Taylor is planning officer at the University of Bath; Elizabeth Taylor is principal of AAT Consultants.

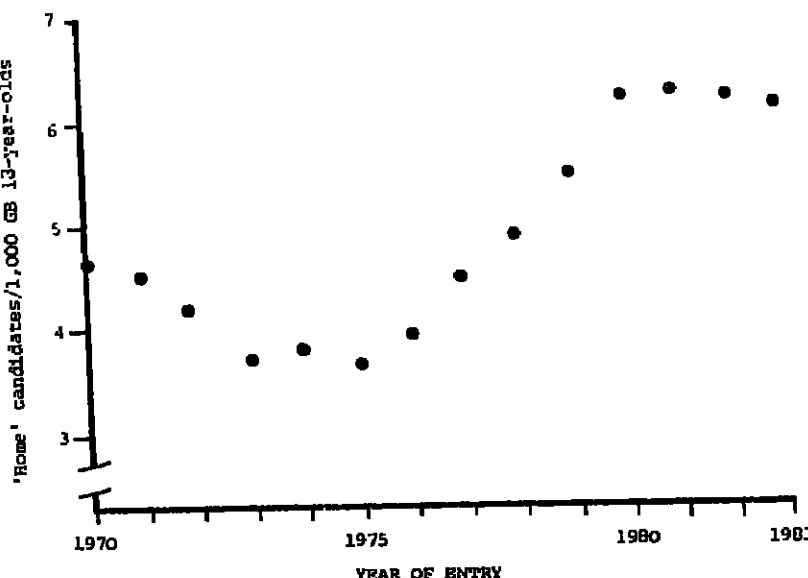


FIGURE A "Home" electrical engineering candidates for admission through UCCA per 1,000 18-year-olds. (Sources: UCCA Annual Reports, CUA (1978) and DES (1983).)

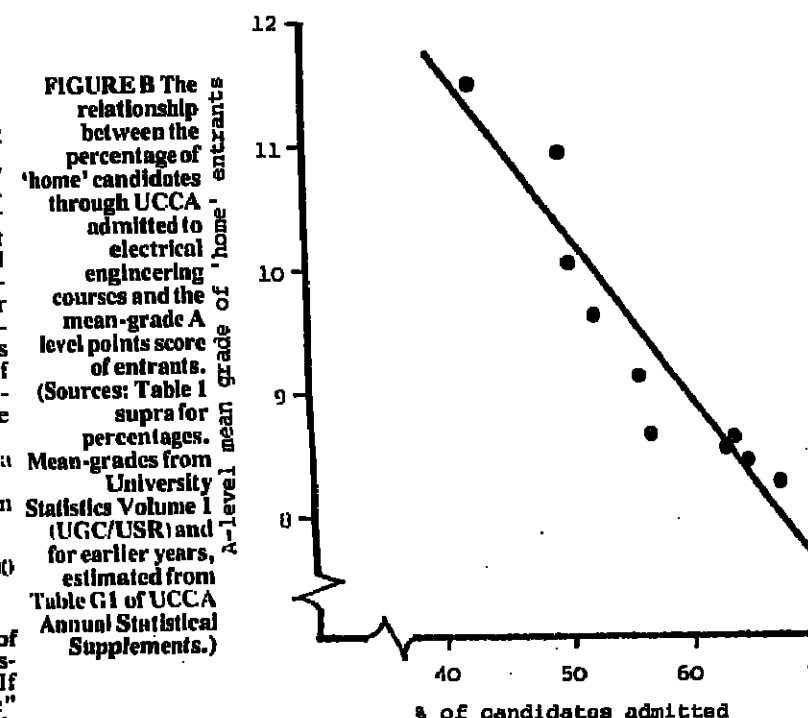


FIGURE B The relationship between the percentage of 'home' candidates through UCCA admitted to electrical engineering courses and the mean-grade A level points score of entrants. (Sources: Table 1 supra for percentages; Mean-grades from University Statistics Volume 1 (UGC/USR) for earlier years, estimated from Table G1 of UCCA Annual Statistical Supplements.)

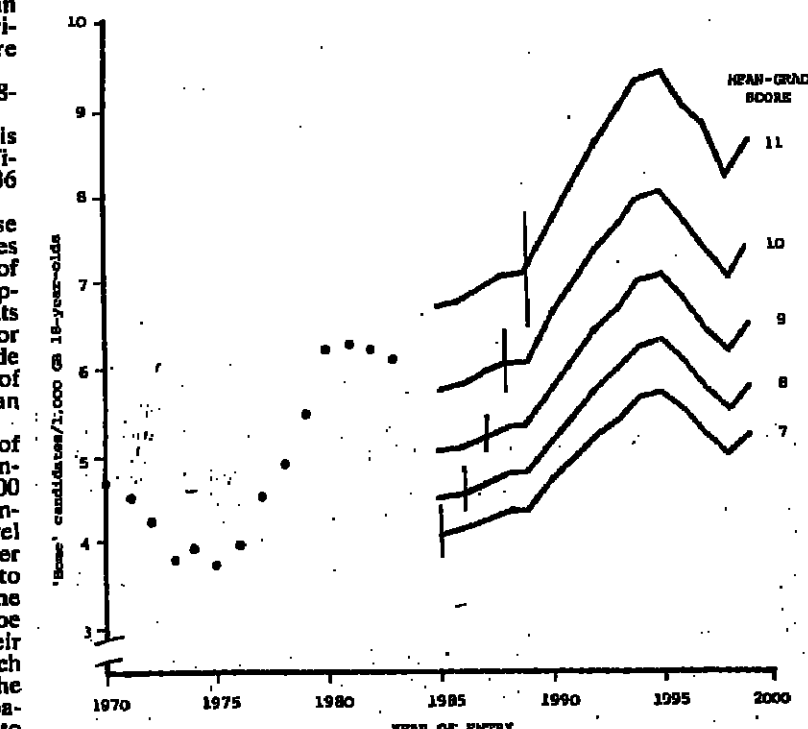


FIGURE C Legend as for Fig. 1 extended to forecast the relationship between candidates/1,000 18-year-olds necessary to achieve five mean-grade A level scores; assuming 2,700 entrants per year.

Entry year	1977	1978	1979	1980	1981	1982	1983
'Home' candidates through UCCA	(a)	3739	4180	4809	5538	5699	5863
Entrants	(b)	2198	2334	2536	2791	2842	2614
(b/a)%		57.2	56.2	52.7	50.4	48.9	43.0

TABLE 1. 'Home' candidate numbers and entry numbers to electrical engineering and the percentage of candidates admitted in the years shown. (Source: UCCA Annual Reports.)

BOOKS

Identifying the landed interest

by J. P. Kenyon

An Open Elite? England 1540-1880
by Lawrence Stone and
Jeanne C. Fowler Stone
Clarendon Press: Oxford University
Press, £24.00
ISBN 0 19 82 2645 4

It has long been an axiom of historical thinking, here and abroad, that what ensured the stability and endurance of the English governing classes, compared with their less fortunate Continental counterparts, was that they were always open to the influx of new wealth and new blood from the merchant classes. Encouraged by a few obvious examples, we envisage a stream of wealthy merchants and manufacturers buying landed estates, marrying their children into the gentry and nobility, and their sons accepting the power and responsibility inherent in social leadership. Concomitantly, though rather less clearly, the younger sons of the landed elite, unhampered by possession of a title, still less by social prejudice, are seen as taking themselves off in large numbers to the shop or the counter, eventually to make a fortune which is syphoned back into land.

An agreeable picture; but this rigorous new analysis conducted by Lawrence Stone with the aid of his wife Jeanne, shows that it is faulty at every point. They show that the English landed elite were every bit as tenacious as their Continental neighbours; they made every effort to keep the estate in the family, even in the person of far-distant cousins, or of in-laws who were then obliged to hypenate or change their name. Also, contrary to legend, it seems to have been very rare after 1700 for a major family to collapse, and fall out of the elite, because of extravagance leading to bankruptcy. Such newcomers as there were to county society were mainly from the lower ranks of the gentry, for whom Stone revives the rather de-modé term "parish gentry"; men who had risen in wealth and status by the lottery of inheritance, advantageous marriage alliances, assiduous land improvement, or the tenure of government office. Very few traders or businessmen sought entrance to the elite, though near London they might purchase a small house in the country for recreational purposes. (Stone makes a clear distinction between a "house in the country" and a "country house", the latter being at the centre of a large estate and the owner's principal residence.) In the three counties they have studied over the period 1540 to 1880, the Stones can only find 137 mercantile "interlopers", only 6 per



Masons at work on improvements to a country house.

cent of all owners, and one third of all purchasers.

On the other hand, lawyers, bankers and financiers were readily accepted. Clearly "a director of the Bank of England or the East India Company had more in common with a landed squire or even a nobleman than either had with a cotton manufacturer from Manchester or a retail tradesman from London". It seems that that vivid Victorian epithet "counter-jumper" expressed a prejudice of longstanding. As Stone puts it, "The real story of the English elite is not the symbiosis of land and business, but of land and the professions, just as in the rest of Europe".

Similarly, scarcely any younger sons in fact went into trade; certainly from this sample only fifteen over the whole period bought their way back into landed society by the profits of trade. Instead, they chose the armed forces or the law, and increasingly, as the eighteenth century unfolded, the church and the East India Company. They staffed, in fact, what Stone calls "the imperial service elite". Some, of course, were lucky enough to inherit a sizeable estate through marriage, and never left the elite at all.

Presented with all Stone's intellectual bravado and literary buoyancy, and buttressed by 51 statistical tables, each linked to a graph or diagram in the text, this is convincing enough to the innumerate, though his previous work has often aroused a storm among statisticians. (Conscientious readers will wish to tackle Appendix II, on "the methodology of quantification", first.)

His main problem has been one of definition. Because of the small size of the nobility and baronage, and the dubious status of knighthood, it is not easy to decide who was of the elite and who was not. Stone's solution is ingenious. Arguing that a member of the elite had a suitable mansion, with an extensive pleasure park as well as an agricultural estate, he has established a quality measurement based on the number of public rooms, or units, using contemporary prints and plans, sometimes inspecting the house itself where it survives. It was, in fact, the "almost invariable practice of the rising man to extend his house or build a bigger one, and the cost of such operations were intimidating; by 1800 owners were being quoted £1,100 for a gateway and porter's lodge, £2,000 for a new lake, £1,200 for a park wall. Even so, Stone can find no clear example of bankruptcy arising from building operations, despite persistent rumours and legends to this effect.

This is a not unreasonable procedure, given the difficulty of establishing landed income, even by reference to land tax returns. What I am a little doubtful about is the size of the sample. The whole book is based on an intensive study of three counties, Hertfordshire, Northamptonshire, and Northumberland, plus a thin corner's tail of casual evidence from a few other areas. Hertfordshire, of course, is taken as representative of the home counties, even then within commuting distance of London; Northamptonshire as a prosperous midlands county, comparable, I suppose, (though Stone

does not say so), with Bedfordshire, Leicestershire, perhaps Warwickshire. Northumberland, which Stone admits was a totally different society right through to 1880, can be lumped together with Cumberland and Westmoreland, perhaps Lancashire. We are left wondering about such idiosyncratic, but extremely wealthy, counties as Kent and Cornwall, or for that matter about the whole western blue. Is it reasonable to suppose that Yorkshire resembled Northumberland, or that East Anglia resembled any of Stone's sample counties? One of his most important discoveries is "the virtual abdication of responsibility for local government by the elite in Northamptonshire, and to a lesser degree in Hertfordshire, in the eighteenth century". "Incomplete data" for Northumberland suggest to him that this was a national trend, which the revival of a concept of public service in the nineteenth century was too late to arrest.

This is a bold assumption indeed, but Stone is at his most commanding when he abandons statistics and embarks in chapter eight on a "profile of the landed elite" from the fifteenth to the early twentieth century. Come are the anxious percentages, instead such words as "some", "many", "almost" and "nearly" are laid under heavy contribution. This and the two chapters which follow, on the social function of the country house, the cultural ideals it embodied, and the financial constraints upon its operation, will be the most rewarding, and certainly the most stimulating part of the book for most readers.

Much of what he says about the new concept of upper class privacy, signalled by the introduction of the corridor, the invention of the bell pull and the consequent segregation of servants, will be familiar from previous work. But his inquisitive eye also takes in the fact that in the eighteenth century bedrooms moved upwards to the first floor; the ground floor rooms, certainly those at the front, became "rooms of parade", or "state rooms", for formal entertaining. And since the family decamped to London all winter for the season such rooms need no longer be heated in proportion to their size. Gun rooms, studies, libraries, billiard rooms bespoke an increasing specialization.

Sometimes he goes too far. Is it true, for instance, that the English focused all their money on the country house, whereas in Europe the emphasis was on the town house? What about Spencer House, Buckingham House on the one hand, Vauxhall-Vicinity on the other? But even if they are open to criticism in detail, such ideas are fruitful and stimulating, and they abound in his last chapter, "The Landed Elite and English Society", which treats us to a brilliant, if idiosyncratic, profile of a class.

If we abandon the idea that the English landed classes were an open elite, and I think Stone obliges us to modify it at the very least, where their remarkable stability and endurance? Stone argues that instead of representing their social superiors the English bourgeoisie, urban and rural, did their best to imitate them; upper class standards were unquestioningly accepted, even the aristocratic code of the duel. (An irritated Lord Chief Justice said in 1812 that "it was high time to stop this spurious chivalry of the counting house".) Stone argues that in the absence of any substantial barriers of legal privilege "general society was sliced and sliced again into extremely thin status layers, subtly separated from each other by the delicate but infinitely resistant lines of snobbery". But I think we are groping here, just as Shirley Letwin was in his subtle and rewarding study of the concept of a gentleman. Just as important was the elite's relations with the tenant farmers who cultivated their estates, and their relaxed attitude to the rural working classes. As Stone himself says, what enabled the elite to survive nearly to the end of the nineteenth century was their "acute sense of limits on the free exercise of power".

J. P. Kenyon is professor of modern history at the University of St. Andrews.

BOOKS

A fresh vision

The Complete Poetical Works of
Thomas Hardy
volume two: *Satires of Circumstance*;
Moments of Vision; *Late Lyrics and Earlier*
edited by Samuel Hynes
Clarendon Press: Oxford University
Press, £35.00
ISBN 0 19 81 2783 9
The Poetry of Thomas Hardy: a study
of his life and ideas
by William E. Buckler
New York University Press, \$27.50
ISBN 0 81 47 1046 8

Thou, who display'st a life of
commonplace . . .
Still shalt remain at heart unread
eternally.

These lines, from Hardy's poem "To Shakespeare", occur in the second volume of Samuel Hynes's three-volume critical edition; they might serve as an epigraph to William Buckler's study of the poetry, which insists above all that we should not read the

poems (or even the *Life*) in order to understand the man.

There are no surprises in Hynes's second volume: the same qualities that marked the first are present here; however the introduction in the first volume remains essential reading for the user of volume two, despite its cryptic brevity. There he will discover why Hardy's manuscript punctuation is not given authority, though he may not find the accompanying dogmatism satisfying; and there he will find elucidated the principle which guided the choice between authoritative substantive readings, though he will find its application not always consistent, and without local explanation.

The text Hynes has established contains relatively few unfamiliar readings, so far as I could discover, none of real significance. Readers familiar with "Line to a Movement in Mozart's E-flat Symphony" will be interested to see how Hardy transforms its penultimate line by transposing one word; those who admire the "Satires of Circumstance" will notice that the last line of "In the Restaurant" is improved in point of versimilitude and spoilt in point of rhythm by the alteration of "Let us" to "Let's". Hardy made these changes in a study-copy of *Collected Poems*; neither has previously appeared in print, but neither of these typical examples could be called remarkable.

Nevertheless the establishment of a critical text is the primary reason why Hynes's edition is essential, despite the existence of James Gibson's excellent

Variorum edition of 1978. It is also true that Hynes records all manuscript alterations, and has obtained access to private collections closed to Gibson; but on the other hand, Gibson's mode of annotation is fuller and more relevant, allowing him to provide information not available in Hynes, and in a random check of two meticulous pieces of work, Gibson's was marginally the more accurate. The existence of these two side by side is a salutary reminder to all textual editors that such activity will always be imperfect; and no serious unraveller of Hardy's craftsmanship will want to be without either.

Among the revisions that Hardy made to familiar poems, there is one in "Great Things" that I suspect William Buckler would appreciate: in the manuscript of *Moments of Vision* the line "Spinning down to Weymouth town" read "Vamping down to Budmouth town". The increase in energy of the bicycling reference is admirable, but he would particularly relish the removal of a "Wessex" name associated primarily with Hardy's fiction. One of Buckler's passionately held beliefs is that writing novels was "the great cross that [Hardy's] aesthetic sensibility had to bear". Unfortunately he spoils what might be a fruitful argument by overemphatic insistence upon it; and this is true also of the central thesis of his book - indeed, I lost count of the times there occurred formulations of the idea that there is always a critical gap between the narrator of one of Hardy's poems and

the poet in which much of the poem's meaning subsists, and that thus the autobiographical approach to his verse is reductive. Buckler derives this position essentially from Hardy's statement in the preface to his first collection that "the pieces are in a large degree dramatic or personative in conception", and in order to test his perception Buckler examines, in his central section, each poem in *Wessex Poems*. Many are revitalized by his approach, but many others are obscured or diminished - the familiar "Hap", for instance, is freshly seen, while the discussion of "Neutral Tones" shows the poverty of the theory when forcibly applied to an unresponsive poem.

In the book's other substantial piece of analysis Buckler attempts to use the gap he perceives between persona and poet to show that Hardy's irritation at those who called him a pessimist was justified. The result, however, is similar: there are interesting reinterpretations of some poems, mingled with readings that seem perversely made to fit the thesis, and the point is only partially enforced.

Other insights have a secondary role: Buckler shows, for instance, that Hardy, by revealing the poetry that there is in the most ordinary events and thoughts, makes the reader aware of the poetry in his own life; he also demonstrates the paramount importance of memory in Hardy's creative experience. Neither is new in itself, but forms part of a fresh vision of Hardy: it is, then, a pity that the chapters are so clearly separate essays, that there is an irrelevant polemic on contemporary critical theory, and that Buckler does not write with the clarity and balance of some of the critics he follows.

Simon Gatrell

Simon Gatrell is senior lecturer in English at the New University of Ulster.

Down the ages

Essays on Medieval Literature
by J. A. Burrow
Oxford University Press, £17.50
ISBN 0 19 81 1187 8
Chaucer: the poet as storyteller
by Derek Brewer
Macmillan, £25.00
ISBN 0 333 26428 2

These two collections of essays, written by two of Britain's most distinguished medievalists, and in both cases containing essays produced over a span of twenty-five years, bear strong witness to a consensus changing.

The old view is still there, encapsulated for instance in Professor Brewer's preface: it is in brief that modern medievalists need to be educated into medieval tastes, so that the medievalist's job is to identify modern assumptions and show how they are inappropriate or inoperative. The new opinion creeping upon us is that less has changed than has remained stable. Medieval theory may have gone, and with it a vast lore of Bible commentaries and penitential practices. Nevertheless people still grow old, strive to dominate, engage in sex wars and word games. These areas of continuity were always in fact and steadily drawn on by critics. The new task of the medievalist is to make tacit understandings overt; and then, indeed, to draw back and point where necessary to significant differences.

The changed attitude shows up most vividly in John Burrow's lead article on "Poems without Contexts: the Rawlinson Lyrics". Here Professor Burrow takes a tiny but fascinating set of medieval fragments, boggles mildly over some of the more massively learned reactions to them, and then sets upon the task of trying to work out what they are, not just from "the words on the page" (an exercise rightly condemned as illusory), nor from purely medieval historical background, but from any information that comes to hand. The surprising thing is how easy the task often proves. One poem quoted is four lines long and makes no literal sense at all; every stanza is a year's student to whom I have shown it has unhesitatingly decoded it as a poem about loss of virginity. The which there is no such thing as a sanity clause. A world in which each attempt to take the heartbeat of the revolution by measuring the pulse of its most extreme members can only lead to the disorientating conclusion: "either this man is dead or my watch has stopped."

The *Experience of Defeat* draws us once again into that zany world that Christopher Hill has popularized. It is a world in which all the Marxist laws appear to have been written by Groucho rather than Karl. A world in which there is no such thing as a sanity clause. A world in which each attempt to take the heartbeat of the revolution by measuring the pulse of its most extreme members can only lead to the disorientating conclusion: "either this man is dead or my watch has stopped."

Yes I do.
The point is not that specifically medieval information does not help

(for Burrow deploys every scrap of evidence of this kind that he can); rather, that literary forms contain unexpectedly large amounts of information not medieval-specific. Love songs and dances are two areas of stability. Meditations on youth and age are a third, used to great effect by Burrow in interpreting Chaucer's *Knight's Tale*. A fourth is proverbial statement, analysed (once more in connexion with age) in a piece on the saying recorded for at least seven centuries, "young saint, old devil". For most of these seven centuries, as Burrow notes, the saying has been thoroughly disapproved of by official culture: it presupposes that there are different moralities for different life-stages. That has not stopped people from continuing to say it, nor stopped writers from balancing precariously between official and unofficial morality. In this respect the *Priores's Tale* and *Tom Jones*, or indeed *Tom Sawyer*, are all variations on the same theme: the reader of Chaucer who has read Mark Twain is in a stronger position than the one who has read the *Miracles of the Virgin*.

Ideally, no doubt, one would have read both. It should not be thought that either Professor Burrow or Professor Brewer shows any sign of going back on the great works of data-collection of their predecessors. Both in fact use concordances and dictionaries heavily. Burrow for instance to explain the more recondite jokes of *Sir Thomas*, Brewer, at greater length, to investigate the word *sad* in Chaucer, and its particular relevance to the

strange world of the *Clerk's Tale*. Here, one may admit, the connexion to modern times appears to be zero, that tale as Chaucer wrote it being so unacceptable as to be taken automatically by the innocent modern reader as either comic or ironic.

Professor Brewer does indeed justify the declared aim of his preface - to rediscover lost assumptions - by concentration on such cases, and on the wider problems of "metonymy" as the guiding principle of Chaucerian poetics. However he too is found interestingly focusing on proverbs, pondering the ages of man, and declaring (for instance) that the comic types of the *fahnen* "represent the basic structures of our lives in Europe". All the possible conflicts generated by age, sex, class and job. "These do not much change over the centuries", he remarks; and he is supported by Burrow's even more provocative remark that "The unconscious mind is not changed very much by history".

Some medievalists, and those the most professionalized, will no doubt think that these two collections, united in their Englishness, their wit, and their resistance to official values, whether Latin-parlous or symbolist-modern, are so humane as to be a positive betrayal. All other students of literature, though, will find them fascinating.

T. A. Shippey

T. A. Shippey is professor of English language and medieval English literature at the University of Leeds.

Black poetics

The Collected Poetry of Aimé Césaire
translated by Clayton Eshleman and
Annette Smith
University of California Press, £19.25
ISBN 0 520 04347 2

The career of the Martinique poet, Aimé Césaire, is frequently presented in a series of dramatic vignettes. There is, for example, that moment at the lycée in Fort-de-France when an unconventional geography teacher, ignoring the rigidities of the French educational system, chose to interest Césaire and his astonished classmates in their own world of the Antilles. There is the revealing glimpse in 1936 of Césaire and Léopold Senghor as students in Paris excitedly poring over the *History of African Civilisation* by Cheikh Anta Diop. And the occasion when, so the story goes, the poet lost his persistent stammer overnight on visiting Haiti in 1944 and discovering there in the Caribbean a dynamic Creole culture.

Such images are revealing as the stuff of literary biography but they promote the idea of the poet's life as a

series of fresh and unexpected beginnings, to which must be added the sudden appearance in 1939 of his classic of decolonization, *Cahier du retour au pays natal*, another fresh start which established Césaire as the first neo-African poet with his roots firmly fixed in the black collective unconscious of that continent. Such a view cannot survive a careful reading of the *Cahier*. It is a work grounded in an intense study of some of the major figures of European modernism (Friedrich Nietzsche, Henri Bergson, Sigmund Freud, Oswald Spengler), a thorough knowledge of French literature, especially the poetry of Baudelaire, Mallarmé and Rimbaud, combined with an awareness of developments in the ethnography of Africa. It was, in fact, the most significant marriage of a modernist poet to the idea of black consciousness or *négritude* (Césaire's most famous coinage), at a crucial moment in the politics and literature of the twentieth century. The surrealist André Breton gave his blessing to the important edition of 1947, while Sartre's famous pronouncement in 1948 on the role of black orphism determined the terms of its significance for many years.

This is the matrix of this complex poem which has exerted such a great influence on the subsequent literature of Africa and the Caribbean. In a mixture of prose poems and lyrics the

poet's persona moves from a bleak, embittered account of life in Martinique ("an aged poverty rotting under the sun, silently") through the long central section about his own childhood, alienation, and the wretchedness of his people ("No, we've never been Amazons of the king of Dahomey") towards the gradual discovery of an identity "for those who have never invented anything / for those who never explored anything / for those who never conquered anything / and finally to the vital renewal of the old stereotypes ("massa's good old darky") are caustically jettisoned. The poem seeks to subvert not only the political status quo but also the poetic and linguistic order by means of its dislocations, contradictions, and neologisms, as the poet breaks through the "membrane that separates / me from myself".

With the publication of this finely produced, definitive bilingual edition of *The Collected Poetry* in which the translators have grappled carefully and successfully with formidable problems, the reader is in a position to place the *Cahier* within the poetic career as a whole. This is unlikely to result in any significant reevaluation. It does, however, become clearer why Césaire's first major poem both launched and overshadowed the rest of his writing career. The new poetic voice spoke, was taken up, imitated, and

became an essential part of colonial protest; and then in the 1950s the poet was faced with the realities of political independence in Africa which the symmetries of Sartre's dialectics were incapable of describing. It is not an uncommon story. Fine poems were to follow in subsequent volumes (*Les armes miraculeuses*, *Soleil cou coupé*, and *Corps perdus*) but it is the note of elegiac uncertainty which predominates in *Ferments* before Césaire turned in 1960 to the theatre. His poetic moment belonged undoubtedly to the 1940s and this is fittingly acknowledged by the illustrations to this volume which consist of paintings by his friend, Wilfredo Lam, the Cuban surrealist, so characteristic of the same decade and milieu.

Aimé Césaire remains an important twentieth-century poet, but the most recent vignette of his unusual career is less dramatic than the earlier ones. It is of the respected poet and elder statesman, the long-serving mayor of Fort-de-France and deputy to the French National Assembly, negotiating cautiously with President Mitterrand for limited autonomy within France *outré-mère*.

David Carroll

David Carroll is professor of English at the University of Lancaster.

Desert island radicals

The Experience of Defeat: Milton and some contemporaries
by Christopher Hill
Paper, £12.50
ISBN 0 571 12337 5

Despite a certain wistfulness, *The Experience of Defeat* is not an autobiography. Quite the contrary: Christopher Hill goes on and on. He seems finally to have shaken off the effects of the devastating assault upon his historical method, his historiographical achievement, and his intellectual integrity that would have stifled most other scholars. His recent efforts have been slight and without the fierce partisanship that characterizes his best work. *The Experience of Defeat* is a return to form. This is archetypal Hill: a reshuffling of his great pack of index cards to lay out another of the jocular games of patience at which he excels.

After a brief foray into the world of literary criticism - a world he notably failed to turn upside down - Hill has

returned to the historical subject that he has frequently described as his King Charles's head: King Charles's head. As his theoretical dogmatism has moderated, his historical interests have moved ever leftward. Once the advocate of the parliamentary cause *in toto*, Hill soon began to champion only those military and political radicals within it. This led to his rehabilitation of the Levellers and Diggers. But when other scholars moved them disappointingly conventional, Hill turned to the revolution's mystics and mystagogues, lavishing attention on the Ranters and the Fifth Monarchy men. As he followed the internal fragmentation of left-wing fringe groups, old radicals became new reactionaries. God's Englishman, as he dubbed Oliver Cromwell, was the devil's tool when viewed from the eyes of the millenarian sects that he studied next. Quakers, Seekers, Moralists, Muggletonians have now all been moved to centre stage though, even by Hill's standards, their contribution to the revolution was slight.

In *The Experience of Defeat* we follow much the same sithering cast of characters who first appeared in *The World Turned Upside Down*, a book Hill described as a "worm's eye view" of the revolution. Indeed, this work might be considered its sequel. The focus now is on the fate of the radicals after their movements were bypassed. Given their transcendence, there should be plenty of material. Nevertheless, most

of the appearances are cameos, brief sketches of individuals loosely organized into chapters. There are seven sentences on John Wildman, four paragraphs on Edmund Ludlow, six pages on Oliver Cromwell. The book itself has no analytic frame. There is no grouping of people by their subsequent experiences; no grouping of experiences by age, or education, or occupation. There are no principles of inclusion or exclusion: those who appear are Hill's desert island radicals. There is some broadening from the narrow band of sects he treated earlier: a nod to the regicides executed after the Restoration, a peek at the eclectic Henry Stubbe, an uncomfortable glance at a few Presbyterian ministers who were made redundant in the 1660s.

But the centre of the book remains the cranks, crackpots, screwballs and fanatics, the nutters and kooks who appear in the wake of every genuine movement for social reform and who become the principal barrier to lasting change. They are ideologues who take ideas to their most extreme conclusions, the purists who proclaim, like the Vipers in the 1660s, "we can't be co-opted, we want everything." Incapable of constructive action, they are men obsessed with symbolic action, digging on common land; appointing the moment for the second coming and climbing a hillside to await it; riding into Bristol on an ass accompanied by palm-waving enthusiasts. These were

the accomplishments of the more representative groups of "the revolution that failed." In fact, their historical achievement was the passage of the Clarendon Code and the Conventicle Act.

Hill has always asserted that he was not studying a lunatic fringe. His contention has never made much headway with historians, though students are usually moved by his inspired account of what, at a safe distance, seem harmless eccentricities. Until Jonestown and the Moonies there existed a reflexive sympathy for communist freedom and a reflexive odium for governmental restraint. In the unbalanced historiography of the English Revolution, in which Presbyterians take the place of the absent royalists, this has served to cast Cromwell in the role of dictatorial oligarch and make his brief encounters with visionaries and the visionless seem the only thing that could be called truth. One need hold no brief for Cromwell to observe his agony over casting out those who might be ennobled and the restraint that was exercised when punishment could not be avoided. The real challenges to the revolution - with the exception of republicanism - were all on the right, from foreign invaders, from Scots and Irish, from royalist intrigues. In a set new standard.

Hill's assertion of the underlying

importance of extremism in the history of the revolution begins with a plea to remember the forgotten, the down-trodden, and the excluded from power. In the preface he begs historians to embrace total history, which in this context means the study of all groups to the left of the Levellers. His appeal might elicit more sympathy were it not the case that we have more studies of the Ranters than the republicans; more on the Levellers than the presbyterians; more explications of millenarian ideas than royalist ones. Nothing has done more to diminish the centrality of the English Revolution than did occur than obsessive concentration upon the English revolution that didn't occur.

The Experience of Defeat draws us once again into that zany world that Christopher Hill has popularized. It is a world in which all the Marxist laws appear to have been written by Groucho rather than Karl. A world in which there is no such thing as a sanity clause. A world in which each attempt to take the heartbeat of the revolution by measuring the pulse of its most extreme members can only lead to the disorientating conclusion: "either this man is dead or my watch has stopped."

Mark Kishlansky

Mark Kishlansky is associate professor of history at the University of Chicago.



Manchester City Art Gallery has recently acquired 91 prints by Francisco Goya. "The Sleep of Reason produces Monsters", above, is from the series "Los Caprichos". The collection is on show from next Friday.

BOOKS

Given up in despair

The Collected Papers of Bertrand Russell, volume seven
Theory of Knowledge: the 1913 manuscript
edited by Elizabeth Ramsden Eames in collaboration with Kenneth Blackwell
Allen & Unwin, £35.00
ISBN 0049200739

Towards the end of 1910, Russell (together with A. N. Whitehead) published the first volume of *Principia Mathematica*. After its publication, Russell's thoughts began to turn away from the problems of formal logic with which *Principia* had been concerned, to issues in epistemology.

One fruit of this new interest was his introductory text of 1912, *The Problems of Philosophy*, still well-known and widely used. What is less well-known (in fact, substantially unknown until 1967) was that a few months after the publication of *The Problems*, Russell began to write a large-scale epistemological work which, he envisaged, would run to 500 pages and rival *Principia* in scale and importance. The work was to have two main parts, an analytic section which would present an analysis of the components of knowledge (acquaintance, belief, memory, inference, and so on); and secondly, a constructive part in which matter, space, time and cause would be given as logical constructions.

Russell began writing early in May 1913. Swept along by a feeling of intellectual euphoria, he wrote some 350 pages in 31 days. During this period he was discussing at least some of the material with Ludwig Wittgenstein, who was highly critical of certain aspects of it. In particular, he criticized Russell's theory of judgment, arguing that it could not meet certain constraints which any adequate theory would have to respect. Russell at first thought that he would be able to meet Wittgenstein's criticisms, but within a matter of days this belief had been replaced by despair, and he came to believe that the criticisms were in fact devastating. He wrote to his mistress Lady Ottoline Morell that "all that has gone wrong with me lately comes from Wittgenstein's attack on my work", and that he felt "ready for suicide". Some three years later, when he had at least partially recovered from

Wittgenstein's onslaught, he was still constrained to write that the attack was "an event of first-rate importance in my life, and affected everything I have done since. I saw he was right, and I saw that I could not hope ever again to do fundamental work in philosophy. My impulse was shattered."

It is also a very curious fact that Russell never subsequently referred to the half-written book when recounting his intellectual development. There is no mention of it in his autobiography, nor in the book he wrote entitled *My Philosophical Development*, nor in the essay "My Mental Development" published as an introduction to the large Schilpp volume of essays about his work. For a man as willing to admit his past mistakes as Russell was, this omission is surprising, and suggests that the whole episode was too painful for him to recall.

But the work he had done was not entirely wasted. Before Wittgenstein's criticisms finally forced the abandonment of work on the manuscript, Russell had arranged for the publication of the first 140 pages or so in the form of articles, which eventually came out in *The Monist* in 1914-15. This material in turn was used by Russell in the Lowell lectures which he gave at Harvard in 1914, and it found its way into print again when the Lowell lectures were themselves published as *Our Knowledge of the External World*.

The unfinished manuscript itself lay with Russell's papers for the next 50 years, unknown to the outside world. It came to light in 1967 when Russell's papers were being catalogued before being sold to McMaster University. It has now been published as the seventh volume of a projected complete collection in 28 volumes of all Russell's shorter writings. Russell's text is here presented with a careful historical introduction describing in detail (sometimes even on a day-to-day basis) the writing of the manuscript. Seventy pages of additional material by the editors provide details of notes made by Russell on the manuscript, authorial alterations to the holograph, etc. It is an impressively thorough and comprehensive piece of editorial work on an important piece by Russell which should earn the gratitude of all Russellian scholars. The only area in which the editors are silent concerns critical assessment of the philosophical merits of Russell's work. However, their own detective work has supplied an excellent text for others to use in carrying out the critical task.

Nicholas Everitt

Nicholas Everitt is lecturer in philosophy at the University of East Anglia.

Within rights

Rights
by Alan R. White
Clarendon Press: Oxford University Press, £12.50
ISBN 0198247168

Professor White's aim is not to present a theory of rights but rather to provide a grammar of the language of rights—to tell us what can and cannot be said in that language and how it is related to other normative language, particularly that of duty, obligation, and "ought". At its best, then, *Rights* is a piece of old-fashioned ordinary language analysis, of the type which dominated British philosophy until recently.

Philosophical analysis is certainly necessary in this area, for many of the questions about rights that arise in political theory involve conceptual issues. Should we talk, for example, of the rights of fetuses or animals or should such talk be confined to active, choosing moral agents? Can a being have rights if it cannot be said to have duties? Does use of the language of rights make stronger claims (metaphysical or naturalistic) than other types of moral discourse and is it therefore more vulnerable to various forms of moral scepticism? Are there any moral claims that cannot be expressed in the language of rights, and are there

distinctive moral claims that can be expressed only in the language?

Professor White begins by reminding us of the great variety of rights. It is important, he says, not to confine one's examination of one's theory to rights to do something or to have something done to one. There are also rights to take up attitudes (such as the right to assume that England will lose the Fifth Test) and rights to be in certain mental states (such as the right to feel proud of the house one has built). Now certainly ordinary language sanctions these latter uses, but why exactly is it important that jurists and political theorists should not overlook them? White says that the oversight is "a root cause of the common mistake that every right... implies a duty." But if one presses the question further—why is it important that this view be exposed as erroneous?—the answer appears to be only that, unless it is, we will be led to neglect this very important category of rights.

It would help if Professor White had stuck to a single pattern of analysis throughout the book. But he does not. When we are dealing with the language of rights, he tells us to be sensitive to the immense variety of things that language is commonly used to express. What is commonly said is cited as conclusive evidence against the theorist who wants to impose some rigour or uniformity on certain uses of the language and consign others to the periphery of his interest. Thus Wesley N. Hohfeld, H. L. A. Hart, and D. N. MacCormick are all criticized for failing to make room in their theories for

uses of "right" that strike Professor White's ear as commonly acceptable. But when we are dealing with the quite different approach, here common usage is sacrificed at the altar of etymology. "Despite what philosophers and jurists commonly say, the notions of duty and right... are quite different. A duty, as etymology suggests, is something which is due from whoever has the duty." This leads White to a number of quite strict conclusions—"It may well be that I ought to feed a starving beggar, but I do not have a duty to feed him in the way that I have a duty to feed my starving children or servants" and "There are no duties to inanimate things such as trees and buildings".

Now one does not want to contest these claims, at least not until one is told why they matter. But it is a wonder that the author concludes that the language of rights analyzed in the first way has no strict logical correlation with the language of duty analyzed in the second way.

Those with a taste for such fine distinctions as "To say that the bus ought to have arrived before now is not the same as saying that it is overdue" will find plenty to relish in this book. But it would have been better volume had it been informed throughout with a sense of which of these distinctions are important and why.

Jeremy Waldron

Jeremy Waldron is lecturer in political theory at the University of Edinburgh.



Daniel in the lions' den, an illustration from *Iconography in Medieval Spanish Literature* by John E. Keller and Richard P. Klinkade (University of Kentucky Press, \$50.00).

human being is the model for the application of psychological principles.

The choice of Professors David Armstrong and Norman Malcolm to argue the sides of the case—Armstrong for the materialists and Malcolm against—is irresistible. Their professional distinction grows largely from their own work in the philosophy of mind giving the controversy its current shape. Unhappily a conflict between committed rivals runs the risk of exchanging engagement for declamation and *Consciousness and Causality* is less of a debate than a restatement of entrenched positions.

The gulf between them appears in a wrangle about pain. For Malcolm a theory contradicting the usage of concepts embodied in common language is false, and in ordinary usage there is no prising one's pain away from an awareness of its painfulness. For Armstrong the linguistic links are spurious and a gap between pain and the suffering of it is possible. The issue is a key test of Armstrong's view that pain can be identified with some sort of physical process without sacrificing awareness altogether and disclosing a deep disagreement about the control which ordinary language should have over philosophical theorizing. Malcolm's Wittgensteinian insistence on a conceptual instead of a causal connection between pain and its bodily manifestations strikes Armstrong as an arbitrary reliance on language endangering the materialist idea that mind and matter obey the same causal laws. Pain is still a brain process causing pain behaviour even though, he concedes, "the mental has logical links to behaviour". But the concession Malcolm replies, tries to reconcile the irreconcilable: How can a causal connection fail to be unequivocally contingent?

The heart of the matter is whether we should follow the Wittgensteinian or the Australian materialists, a decision best not left to either group. Loggerhead conflicts signal the need for a fresh look at epistemological alternatives rather than the repair of tired theories. The liberalist philosophers of mind, Professor Armstrong and Richard Rorty, could have saved the book from much of its parochialness but they are absent even from the index. And this is a pity, for some antidote is needed to Armstrong's determination to hold on to materialism at all costs and Malcolm's to sink it at any cost. Valuable insights infuse the discussions—Armstrong's account of introspective qualia, Malcolm's perceptive plea for the idea that persons, not minds and their intentions, are explainable in terms of behaviour—and ultimately its physical causes. Consciousness becomes in principle a transparent and unmythical subject for observation.

Yet the programme seems intuitively counter to the conviction that feelings and experiences are more than something physical. Pain hurts, whatever story we tell about its causes, and depression is more than a disposition to act in a depressed way. Hence a second picture owing much to Ludwig Wittgenstein. Feelings there are, but neither ignoring nor looking inwardly to them, faces the problems of the mind. Whatever one feels it would not be pain or depression if isolated from our actions and circumstances. By moving from the outside to the inside of a person we move no closer to the mind. We move to the mind by abandoning materialist metaphysics in favour of the idea that only the living

R. W. Newell

R. W. Newell is honorary fellow of the University of East Anglia.

BOOKS

Dispelling a myth

The False Promise of the Japanese Miracle: Illusion and realities of the Japanese management system
by S. Prakash Sethi, Nobuaki Namiki and Carl L. Swanson
Routledge, £10.95
ISBN 07323 0203 3

It seems that each passing decade brings with it a new economic hero; in the 1920s the United States, in the 1930s Germany, and now, in the 1980s, Japan.

The rise of Japan from the ashes of defeat in the Second World War does indeed have a heroic quality to it. Who would have thought that a country battered into unconditional surrender by atomic bombs, deprived of a vast empire, deficient in natural resources, and occupied by an alien power bent on transforming its most basic social institutions, could, within a generation, become the third most powerful economy in the world? To a growing number of western observers the present little short of miraculous. And the heroes of yesterday have turned their attention to the East in search of the secrets of success. Some of them believe they have found them in the shape of the Japanese business and management system.

In this carefully researched and thought-provoking book, Sethi and his colleagues set out to present a balanced picture of the realities of Japanese business and management and to consider what, if anything, of Japanese practice might find fruitful application in the West in general and the United States in particular. In their view, the adulation which has been so frequently and uncritically heaped upon the Japanese way of managing is largely misplaced.

On the one hand, there has been a failure to appreciate the intimate relationship between Japanese management methods and the unique social, political and cultural context in which they operate. On the other, there has been a tendency to gloss over the very serious drawbacks which accompany the Japanese system when judged from a western point of view.

Japanese business has benefited substantially from the "incestuous" relationship which prevails between business leaders and government. One effect of this is that business interests have generally been promoted to the exclusion of all others. Consumer protection and environmental legislation has been late in coming, often resisted and limply enforced. Lack of investment in social welfare has meant the neglect of the elderly, an acute shortage of housing and, not least, a primitive public sewerage system. Women are subject to blatant discrimination at work and

Consider her ways

Benjamin Kidd: portrait of a Social Darwinist
by D. P. Crook
Cambridge University Press, £30.00
ISBN 0521 25804 9

Whereas most members of the educated public could give some account of such contemporaries of Benjamin Kidd as Sidney Webb, J. A. Hobson, Ronald Galton or Charles Booth, Kidd's name itself evokes little recognition. Yet in his time, he was a great celebrity, a social prophet universally discussed and widely revered. The book that catapulted him to fame in 1899, *Social Evolution*, had to be reprinted many times in the first year of publication and was translated into ten languages. His essay, "Control of the Tropics", influenced Joseph Chamberlain, and his *Principles of Social Evolution*, though less successful at home, had a great vogue in China, where it inspired Mao Tse-tung. Kidd's first biographer, rightly or wrongly, says that actually influence and readership are not necessarily

relegated to the ranks of second-class citizens. And criticism of companies at shareholders' meetings is routinely suppressed by professional thugs who are employed for the express purpose of intimidating stockholders. Japan may be a success in economic terms, but in social terms it might well be considered a disaster.

Moreover, many of the Japanese management techniques which are now being advocated as the solution to the problems of western business seem either to depend for their effect on factors specific to Japan, or to be associated with costs which are unacceptable in the West. "Lifetime employment", for example, guarantees certain groups of employees a job for life and thereby harnesses the commitment of the employee to the firm. But this "work" in Japan partly because loyalty to the work-group is so highly valued that anyone who considers leaving it is regarded as a traitor. Lifetime employment is, at the same time, a life sentence.

The Japanese management system is essentially a response to Japanese culture. Practices such as consensus decision-making, job flexibility, the use of quality control circles and enterprise unionism do not create the almost fanatical commitment of Japanese workers to their firms nor their deep respect for hierarchy and authority. On the contrary, these attitudes are better seen as prerequisites for the effective operation of these

management methods. What grounds are there, then, for believing in the miraculous powers of Japanese management when it is applied in a society which sustains a quite different set of values?

Precious few, it seems. For by surveying the experience of both Japanese and American firms which have tried to implement Japanese techniques in America, these authors present a substantial case for saying that they do not, and cannot, work there. They also point to the system's growing obsolescence in Japan itself. It would be ironic if, in their attempt to meet the threat of Japanese competition, western companies were to try to introduce management methods which are not only grotesquely inappropriate, but which are also being abandoned by the Japanese themselves. Yet this is the prospect if "this current misguided attempt at a myopic imitation of the Japanese management system" persists. I hope that the appearance of this important book, which should be read by managers, trade unionists and politicians alike, will do much to dispel the myths which surround Japanese management. If so, its own promise will have been amply fulfilled.

Alan B. Thomas

Dr Thomas is lecturer in sociology and organizational behaviour at the Manchester Business School.

Tried and tested

The Closing Chapter
by Lord Denning
Batterworth, £10.50 and £6.50
ISBN 0406 17611 6 and 17612 4

Which English judge has a silk farm at the bottom of his garden, has a love of poetry and the Bard matched only by Rumpole of the Bailey, has a wife whose judgments have been upheld more consistently by the House of Lords than his own, has had the opening line of one of his more celebrated judgments reproduced on T-shirts, has had three different TV series preparing documentaries on his life in the same period, and would never have used a sentence as long as this in his opinions? To reveal that his final words before retiring were: "No, we do not grant leave to appeal to the House of Lords" is to make the question even more rhetorical than before.

In *The Closing Chapter*, Lord Denning's fifth book in as many years (and, he says, his last one), the author sets himself two tasks. First, to provide a sequel to *The Family Story*, giving an account of the events leading up to his

retirement and after it. Secondly, to update his discussion of certain legal issues raised in *The Discipline of Law* and *The Due Process of Law*. The work, like its predecessors, is written with law students and the general reader principally in mind. This is no accident. Increasingly criticized by academics and rebuffed (and frequently rebuffed) by the House of Lords in his final years, Lord Denning wrote more and more for the popular audience from whom he derived the strength and the impetus to continue on his iconoclastic crusade. He seems, as it were, to have come to see himself as "the people's judge". Certainly his willingness to provide instant legal opinions to the world at large after his retirement supports the supposition. Yet ironically it was Lord Denning's self-indulgence as a publicist which led to his downfall. Judged on their own merits, his remarks on the subject of colour were arguably no more outrageous than the remarks of a number of English (and male) judges in rape cases in the past decade. Yet the popular outcry which followed each of these cases did not induce the judges involved to resign. Lord Denning resigned when his last bastion of support, "the free press", had deserted him.

Part two of the book conforms to the now familiar pattern of Lord Denning's literary output in recent years: a mixture of short sentences and long extracts from his judgments in the Court of Appeal. His themes, too, are well tried and tested. First, the problem of the proper approach to statutory construction, particularly where there is a "gap" in the legislation. Lord Denning reiterates his view that judges should fill such gaps. "Trust the judges" to use their good sense, is his solution. Secondly, the scope of judicial review of the decisions of public authorities. As before, "trust the judges" is the solution advocated. Next, the power of the trade unions. Now the solution is subtly altered: "trust the judges"—but not the House of Lords. Lord Denning's final theme is the running battle between the House of Lords and the Court of Appeal which developed in the final years of his career. Here Lord Denning comes full circle, for in appealing to his readers to judge between the two courts and where appropriate to write to the Law Commission to suggest changes in the law he is invoking what he regards as the highest Court of Appeal in the land—the will of the people. What else could we expect of "the people's judge"?

When Lord Denning retired he received a model from an Indian lawyer in which justice was represented by a white elephant. It is sad to reflect that in Thackeray's Britain where the holders of the highest judicial posts such value on the bureaucratic concerns of efficiency, economy and expeditiousness; the single-minded pursuit of equity which is synonymous with Lord Denning may now have become an anachronism.

Alan A. Paterson

Alan Paterson is professor of law at Strathclyde University.



Will Jones, the Communist candidate in a local election in Bedlington in 1936. The picture is reproduced in a study of the Welsh miners who fought in the Spanish Civil War, *Miners Against Fascism* by Hywel Francis (Lawrence & Wishart, £12.50 and £4.95).

Keeping the faith

From Athens to Jerusalem: the love of wisdom and the love of God
by Stephen R. L. Clark
Clarendon Press: Oxford University Press, £15.00 and £6.95
ISBN 019824698 6 and 824697 8

The trustees of the Gifford lectures invited two lecturers from the University of Glasgow to deliver the Gifford lectures for 1982. This volume consists of the five lectures delivered by one of those invited, which amount to about half the text of the remainder. Professor Clark gives us two extended pieces, on epistemology and on the topic of the evolution of consciousness. Two shorter pieces, on animal rights and on "The One and the Many" complete the volume, apart from a final chapter of conclusions.

Gifford lectures the first five chapters represent something of a mini version of the Gifford. The chapters are relatively short; they each deal with a different topic; there is no space for extended argument and there is no obvious unifying theme to link them. Nevertheless they are attractively written, bring a lively and fresh approach to some of the traditional topics of philosophical theology, such as the problem of evil. In persuading us to re-examine cherished assumptions, the widest and best sense of that word. Moreover the discussions are laced with innumerable apt quotations from a wide range of reading outside tech-

nical philosophy, especially literary, scientific and theological. In these five chapters, Professor Clark has succeeded in resurrecting a once popular but now seemingly lost genre, namely the attractively and intelligently written discussion of philosophical theology, accessible and appealing to intelligent educated laymen. It is difficult to know how many of the latter with an interest in philosophical theology survive but to those still around the first five chapters will undoubtedly make a strong appeal.

The subtitle of the work points to the underlying convictions which inspire the author's views. The meaning of the word "philosophy" is derived from the Greek, "love of wisdom". The pursuit of modern philosophy, particularly since the Enlightenment, has tended to cultivate a severely rational and sceptical outlook, allied in Anglo-Saxon philosophy since David Hume to a strong empiricist leanings. Such tendencies undermine belief in a transcendent, supernatural being or spirit, essential to the theistic views of Christianity, Judaism and Islam and so philosophy has proved inimical to religion. Philosophy, being rational, is inevitably opposed to the irrationalities of faith.

For Clark, "philosophy is not the enemy of faith: if we permit it, it will lead us to that place from which we see that Love, which moves the sun and other stars, moves the sun and other stars." Philosophy, although it relies on rules of reason and rules of logic, nevertheless must start with basic intuitions which reason cannot prove. In this sense philosophy, like science, rests on "faith". Those intuitions from which we must start lead us to reject a materialist metaphysics, to reject any form of relativism or indifference. Objectivity in thought and belief can only be grounded in the conviction that the source both of our

true thoughts and of the world is ultimately one, the One Unchanging. If the One Unchanging is the source of both philosophical and religious truth, the traditional opposition between faith and reason in modern philosophy is undermined and eliminated. In his defence of Christian religious belief, Professor Clark is deliberately directing us back to Plato. In this he can appeal to the tradition of the early Christian Apologists in the first four centuries who in developing Christian theology drew heavily upon neo-Platonism. After all, what other metaphysical best fits the Pauline claim that "things seen are temporal, things unseen are eternal"? This is all very well except that modern philosophy points to severe philosophical problems at the heart of the Platonic metaphysics and Clark does little explicitly to counter these difficulties.

Clark's religious thesis follows easily from his basic metaphysical claim. If the source of all is the One Unchanging, the great religious traditions are but different manifestations of the source of all being. So there is truth in Buddhism as well as in Christianity. Again this is all very well, except for the thought—how in this ecumenical alleged uniqueness of Christianity? Or for that matter how can we envisage the One Unchanging as personal, as "father" of us all? I am not sure that Clark addresses himself to the first of these questions, and his answer to the second, though consistent with his Platonism, may leave Christian theologians unconvinced.

T.A. Roberts

T. A. Roberts is professor of philosophy at University College, Aberystwyth.

Painful conflict

Consciousness and Causality: a debate on the nature of mind
by D. M. Armstrong and Norman Malcolm
Blackwell, £17.50
ISBN 0631 13212 0

For the past decade or so philosophers have focused on two rival pictures of the mind. Materialism is aimed at bringing mental phenomena within the scope of scientific testing and is rooted in the conviction that the mind is part of the body in the cogent sense in which the brain or the central nervous system is. Pains just are states of the brain and longer-term emotions or intentions are explainable in terms of behaviour and ultimately its physical causes. Consciousness becomes in principle a transparent and unmythical subject for observation.

Yet the programme seems intuitively counter to the conviction that feelings and experiences are more than something physical. Pain hurts, whatever story we tell about its causes, and depression is more than a disposition to act in a depressed way. Hence a second picture owing much to Ludwig Wittgenstein. Feelings there are, but neither ignoring nor looking inwardly to them, faces the problems of the mind. Whatever one feels it would not be pain or depression if isolated from our actions and circumstances. By moving from the outside to the inside of a person we move no closer to the mind. We move to the mind by abandoning materialist metaphysics in favour of the idea that only the living

R. W. Newell

R. W. Newell is honorary fellow of the University of East Anglia.

drama inherent in Kidd's passage from a clerkship in the Inland Revenue to international fame as a social prophet, he was not a colourful character. He was a private, even secretive person, craving fame but withdrawing for long stretches from society and public life, and in spite of the energy and scholarship with which his biographer has discovered and recorded everything that can be established about him, he remains too shadowy to capture the reader's sympathetic interest. The only occasions when he comes to life as a person are in his accounts of his experiences as a socialist, describing how he felt when he disturbed the mother while wading in the Severn Estuary, or how, holding a wasp's nest in both hands and unable to reach his watch, he managed to time the process he was observing by reaching his pulse with one finger.

The book is clear and well-written, though perhaps more comprehensive than its subject warrants: a shorter study at a lower price might have been sufficient to restore Kidd to his appropriate place in intellectual history.

Margaret Canovan

Dr Canovan is lecturer in politics at the University of Keele.

Polytechnics continued

LEEDS POLYTECHNIC

Applications are invited for the following posts:-
School of Health and Applied Sciences

LECTURER II IN ORGANIC CHEMISTRY

Applicants should be well qualified chemists. Ability to teach at various levels is required from HC (BTEC) Physical Sciences (Chemistry) to honours degree standard. Participation in research activity will also be expected.

School of Mechanical and Production Engineering

Up to 3 LECTURER II POSTS

- available in:-
- 1 Dynamics and Control
 - 2 Manufacturing Organisation and Management
 - 3 Manufacturing Technology

Applicants should have strong academic backgrounds for the above posts and be able to lecture in their specialism on a range of courses, including an MSc course, the New B.Eng course and a part time BSc.

Informal discussions are possible by ringing the Head of School, Dr R E Schofield on Leeds 492883.

School of Construction Studies

LECTURER II IN QUANTITY SURVEYING

The post requires a person preferably with a first degree together with professional membership of the RICS to teach on undergraduate and professional membership courses.

LECTURER II IN CONSTRUCTIONAL MATERIALS SCIENCE

A graduate is required to teach on honours degree and professional membership courses related to the built environment, with an interest in laboratory testing and research development.

School of Law

LECTURER II IN LAW

Applicants should be able to offer at least two of the following subjects: probate, family law, conveyancing and litigation.

Business School

LECTURER II IN MARKETING

To join the Business School's marketing team and teach on a variety of full and part-time courses at both undergraduate and post experience levels. Additionally to participate in course administration.

Relevant teaching and commercial/professional experience required.

School of Social Studies

LECTURER II IN SOCIAL WORK

A lecturer in social work is required to teach social work theory and practice and to undertake a range of tutorial duties in connection with social work courses.

School of Creative Arts and Design

LECTURER II IN PAINTING

Appropriately experienced to teach on the BA (Hons) course in Fine Art.

Polytechnic Library

LECTURER I - ASSISTANT TUTOR LIBRARIAN (BUSINESS AND SOCIAL SCIENCES)

To specialise in Economics, Politics and Linguistics. NJC Conditions of Service.

School of Humanities and Contemporary Studies

A part-time tutor is required for BA (Hons) art and design courses in 19th/20th century art history and the theory of art commencing October 1984.

Salary Scales: LI: £5649 - £9735
LII: £7215 - £11,568

Details from: The Services Officer, Leeds Polytechnic Calverley Street, Leeds LS1 3HE. Tel: 0532 482365

Closing date: 28 September 1984. PLEASE ENCLOSE SAE

LEEDS IS AN EQUAL OPPORTUNITY EMPLOYER.

NEWCASTLE UPON TYNE POLYTECHNIC

DEPUTY DIRECTOR

Following the appointment of Professor J L Clark as Director of Hong Kong Polytechnic the Polytechnic Governors are seeking to appoint a Deputy Director.

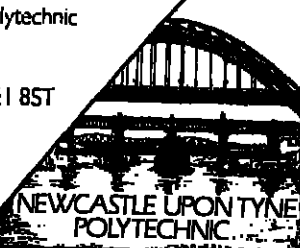
The post will be concerned with academic affairs, including responsibility for the co-ordination of the academic planning and its related resources planning, and will deputise for the Director in his absence.

Salary £24,117 in Burnham Vice Principal Group 12 Range (pay award pending).

Further particulars and application form from:

The Chief Administrative Officer
Newcastle upon Tyne Polytechnic
Elison Building
Elison Place

Newcastle upon Tyne NE1 8ST
to whom
completed applications
should be returned by
24 September 1984.

Sheffield City Polytechnic
DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING
PRINCIPAL LECTURER (2 POSTS)

Applicants are invited for suitably qualified and experienced engineers for the above posts. One of the posts will be in control systems design and application; the other in one of the following areas: VLSI and microelectronic systems design, industrial electronic systems, digital communications, computer technology, intelligent machine design or computer-aided engineering.

The successful applicants will be able to initiate and lead research and industrially-related developments as well as playing a leading role in the development of teaching in their subject area.

LECTURER II (TEMPORARY)

This appointment will be for a fixed term of two years, commencing in September 1984, and will involve a higher degree of responsibility and other activities in at least one of the following subject areas: Electronic circuit design, digital systems, control systems, communications, computer technology. Applications from engineers have recent industrial experience will be especially welcome.

Application forms can be obtained from the Personnel Officer (Dept. THES) Sheffield City Polytechnic, Halfords House, Filton Square, Sheffield S1 2BB, or by telephoning 0742-20011 Ext. 2387. Closing date 21st September.

Sheffield City Polytechnic is an Equal Opportunities Employer. Applications from job sharers are welcome.

DUNDEE COLLEGE OF TECHNOLOGY
Department of Electrical and Electronic Engineering

SENIOR LECTURESHIP AND LECTURESHIP

Applicants should possess a good honours degree in electrical and/or electronic engineering or a related discipline, and preferably a higher degree, together with appropriate industrial and/or research experience. The persons appointed will be required to teach up to honours degree level and engage in research. The senior lecturer will be expected to initiate and lead research activities in his/her specialism and develop further links with industry. The specialist could be in one of the following areas: digital systems, digital communications, power electronics or solid state electronics.

Salary scales: Senior Lectureship: £12,777 - £14,184 (bar) - £16,104; Lectureship: £8,688 - £12,777 (bar) - £15,716. Initial placing will depend upon approved previous experience. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application forms obtainable from the Personnel Officer, Dundee College of Technology, Bell Street, Dundee, DD1 1HG, to whom completed forms should be returned by 28 September 1984.

DUNDEE COLLEGE OF TECHNOLOGY
Department of Mathematics & Computer Studies

RESEARCH ASSISTANTS

Two research assistants are required for a SERC funded project to produce a database query language for operations on complex objects. Both appointments are for a fixed-term of 3 years commencing on 1 October 1984. Applicants should possess a honours degree in computer science or other appropriate discipline. The persons appointed will be expected to register for a higher degree while working on the project.

Salary scale: £5,310 - £8,530, with initial placing at an appropriate point. Further particulars and application forms are obtainable from the Personnel Officer, Dundee College of Technology, Bell Street, Dundee, DD1 1HG, to whom completed applications should be returned by 21 September 1984.

Brighton Polytechnic

FACULTY OF MANAGEMENT AND INFORMATICS
HEAD OF DEPARTMENT OF COMPUTING AND CYBERNETICS

Grade VI - £16,632-£18,327 (under review)

The Department, currently the largest in the Polytechnic, has an acknowledged reputation for computer education. Brighton was among the first institutions to provide a degree course in computing, and more recently, was selected to provide additional student places in the context of national Information Technology initiatives.

In addition to its own courses (full-time, sandwich, part-time) at post graduate, first degree, diploma and professional levels, the department has a strong commitment to, and involvement with, a variety of courses throughout the Polytechnic.

The successful applicant for this key academic position will be able to demonstrate a comprehensive knowledge of Information Technology and the challenge it presents for Higher Education. He/she will have strong teaching, research and consultancy interests and the potential to attract external funding to the Polytechnic.

For further details and application forms, please contact the Personnel Department, Brighton Polytechnic, Moulsecomb, Brighton BN2 4AT, Tel. (0273) 683855, Ext. 2537. Closing date 27 September 1984.

SENIOR LECTURER 'A' IN HOME ECONOMICS

Applications are invited for the above post from candidates with recent course development experience. The successful applicant will be expected to direct the progressive development of a BA in Home Economics and have the qualities to co-ordinate the work of a multi-disciplinary teaching team. Candidates must possess a good degree either in home economics or a relevant discipline with, preferably, demonstrable success in either industry, commerce, or research. Possession of a higher degree will be an advantage.

Salary Scale: Senior Lecturer 'A' - £12,777 - £14,184 (bar) - £16,104

Application forms and further particulars from The Personnel Department, Margaret College, Clerwood Terrace, Edinburgh EH12 8TS. Telephone 031-338 8111 (Ext 284)

Closing date for applications: 30 September 1984

Administrative Assistant

Salary (£8,264-£7,005 per annum) currently under review

This vacant post is sited in the Academic Registry, a division of the Polytechnic which is involved in all aspects of Course and student administration, and is particularly responsible for providing secretarial and administrative support to the Faculty of Science, Engineering, Mathematics and Computing located on the Frenchay site.

Organisational ability and a good command of English are essential and applicants should hold a degree or equivalent professional qualification with at least one year's appropriate experience.

For further details and an application form, to be returned by 24 September 1984, please contact the Personnel Office, Bristol Polytechnic, Coldharbour Lane, Frenchay, Bristol or ring Bristol 656261, Ext 216 or 217.

Please quote Reference Number A74 in all communications

Bristol Polytechnic

DUNDEE COLLEGE OF TECHNOLOGY

Applications for the following posts in the Department of Mathematics & Computer Studies are invited from persons who hold high academic qualifications and have appropriate teaching, research and/or industrial experience.

SENIOR LECTURESHIP IN COMPUTING

A specialist interest in distributed systems, telecommunication systems or office automation would be an advantage. The person appointed will be required to lead a leadership role in the further development of computing within the department.

LECTURESHIP IN COMPUTING

A specialist interest in data processing, artificial intelligence, software engineering or machine interfaces would be an advantage.

LECTURESHIP IN STATISTICS

A specialist interest in time series, multivariate analysis, statistical computing or econometric modelling would be an advantage.

SALARIES

Senior Lectureship: £12,777 - £14,184 (bar) - £16,104, with initial placing dependent upon approved previous experience.

Lectureship: £8,688 - £12,777 (bar) - £15,716, with initial placing dependent upon approved previous experience.

Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application forms may be obtained from the Personnel Officer, Dundee College of Technology, Bell Street, Dundee DD1 1HG, to whom applications should be lodged not later than 21 September 1984.

Polytechnics continued

Teesside Polytechnic
HEAD OF DEPARTMENT OF DESIGN (GRADE V)

Applications are invited from persons with appropriate qualifications and experience.

The Department has honours degree courses in Industrial Design and Interior Design and is developing part-time courses particularly in the field of in-service teacher education. Development in the field of Computer Aided Design are prominent in the present work of the Department.

Salary scale: £15,380-£17,091 (pay award pending).

Further particulars and application forms available from the Personnel Office, Teesside Polytechnic, Borough Road, Middlesbrough, Cleveland TS1 3BA, Telephone (0842) 218121, Ext 4114. Closing date for applications: 5th October, 1984.

(18891)

RESEARCH FELLOW

To develop a computerised transport office (temporary 1 year post)
£1215-£9,801 - pay award pending

Required to assist existing staff in the development of a simulated office of a transport firm to be used by undergraduate and post-graduate students of transport and shipping management.

Data will be provided by existing transport firms and the office systems will be based mainly on applications packages (eg spreadsheets) using the IBM Personal Computer. Suitable candidates are likely to be either graduates with experience in systems analysis or recent post-graduates with extensive experience in computers and an interest in business systems.

Applicants should possess or be about to obtain a PhD or have equivalent qualifications in the field of computer science or engineering. Additional experience in computing would be welcome.

The appointment - to last for 2 years - will commence on 1st October 1984 or as soon as possible thereafter.

Application forms and further particulars - to be returned by Monday 24th September, 1984 - may be obtained from the Personnel Officer, Plymouth Polytechnic, Drake Circus, Plymouth PL4 8AA. Closing Date: 1st October 1984. Tel: 0752 264369.

(18891)

The Polytechnic of North London

Re-advertisement of Department of Design and Communications Engineering SENIOR LECTURER/LECTURER II IN ELECTRONICS AND COMMUNICATIONS ENGINEERING

Applications are invited from graduates and/or chartered Electronic Engineers. Candidates should be suitably qualified in Electronics and Communications Engineering and have a minimum of 5 years' experience in the field of Electronics and Communications Engineering. Recent development experience in one or more of the following areas will be a distinct advantage.

Modern Communications Engineering: Analogue and Digital Electronics, Microwave Engineering, VLSI and Microelectronics, Systems, Signal Processing.

Salary scale: Senior Lecturer: £12,777 - £14,184 (bar) - £16,104; Lecturer II: £8,688 - £12,777 (bar) - £15,716. Initial placing will depend upon approved previous experience.

Further particulars and application forms are obtainable from the Personnel Officer, The Polytechnic of North London, 100 Tottenham Court Road, London W1P 0LP.

Closing date: 14 days from the advertisement of this advertisement.

Computer Centre
P2 Resources
Information Services Officer
(66/0351)

Salary Range: £10,638-£11,703 (pay award pending)

This key post will be responsible for the identification, development and support of computer based information systems used throughout Polytechnic administrative processes.

Application form and further particulars, to be returned by 28th September 1984, are available from the Personnel Office, Plymouth Polytechnic, Drake Circus, Plymouth PL4 8AA. Tel: 0752 264369.

(18891)

Sunderland Polytechnic

Faculty of Humanities
Department of Business Management

PRINCIPAL LECTURER TO CO-ORDINATE THE POLYTECHNIC'S SMALL BUSINESS CENTRE

TWO LECTURERS II/ SENIOR LECTURER IN BUSINESS MANAGEMENT

Applicants should be well qualified.

For the Principal Lecturer, recent experience of the small business sector is essential.

The posts in Business Management are in:

- (i) quantitative analysis/statistics/operational research; and
- (ii) modern management theory and practice.

Recent industrial experience would be an advantage.

Salary Scales: (Under Review) £12,777 - £14,184 (bar) - £16,104; £8,688 - £12,777 (bar) - £15,716. Initial placing will depend upon approved previous experience.

Application forms and further particulars may be obtained from the Personnel Office, Sunderland Polytechnic, 78-83, Ext. 77.

Closing date for applications: 1st September 1984.

(18891)

Lancashire Polytechnic at Preston

Applications are invited for the post of DEPUTY ACADEMIC REGISTRAR

(Current Review and Validation) Salary Grade: £10,761 - £11,703 (pay award pending) effective 1.7.84.

Applicants for this post should possess a honours degree or equivalent qualification and also have substantial administrative experience, preferably in a College of Further/Higher Education.

Disturbance allowance payable in appropriate circumstances.

Application forms and further details obtainable from the Personnel Office, Lancashire Polytechnic, Preston PR1 2TD. Tel: (0772) 660077 quoting reference A77/84/85/18.

Closing Date: 31 September 1984. (11943)

Middlesex Polytechnic London

EXAMINATIONS ADMINISTRATOR

£2,791 - £9,389 p.a. inc. £1,000 London Allowance

Responsibilities include correspondence with the examination regulations and procedures and managing the Examinations Office.

Significant experience of senior administrative or managerial responsibility, preferably within higher education, is essential. The ability to deal with people, initiative, and confidence are also essential.

Application form and further details are obtainable from the Personnel Office, Middlesex Polytechnic, 114 Chase Side, London N14 5PN. Closing date: 20 September 1984.

(18891)

Manchester Polytechnic
Faculty of Community Studies
Didsbury School of Education

LECTURER II IN SPECIAL EDUCATIONAL NEEDS

To work with a team of tutors in the development of the Special Needs area of the Faculty. This area is well established in the Polytechnic and special needs including severe learning difficulties. The successful candidate will be expected to contribute to both initial and in-service courses and should expect to work up to two evenings a week.

Qualifications in teaching and/or education and/or a recent experience of working with children with special needs in ordinary schools.

An ability to make a special contribution to the development of the Special Needs area would be an advantage. Special needs in curriculum development, special needs in ordinary primary schools, the emphasis, however, would be on SEN in ordinary schools in response to the 1981 Act.

Salary scale £7,215 - £11,568 per annum.

For further details and an application form (returnable by 21 September 1984) send a self-addressed envelope marked 'C/583' to the Secretary, Manchester Polytechnic, All Saints, Chester M15 6BH. Previous experience of teaching will be considered. (11947)

Middlesex Polytechnic

School of Mechanical and Production Engineering

READER IN MECHANICAL PRODUCTION ENGINEERING

£13,506 - £16,731 p.a. inc. LECTURER IN MECHANICAL PRODUCTION ENGINEERING

up to £13,506 p.a. inc. Opportunities to teach and to undertake research and consultancy with local industry, in one of the following areas:

- (i) CAD/CAM/CAE/FMS/Robotics
- (ii) Production Systems and Planning

Applicants should be chartered mechanical or production engineers with a minimum of 5 years' experience in the above areas. Degree holders are expected to have a minimum of 3 years' experience in the above areas. Senior Lecturer grade, remuneration and conditions of service are required for appointments at this level.

Write quoting ref A469B for further details and an application form, postable by 21 September 1984, to the Personnel Office, Middlesex Polytechnic, 114 Chase Side, London N14 5PN. Closing date 1 October. (11951)

Leicester Polytechnic

School of Economics and Business Administration

LECTURER II/SENIOR LECTURER IN ACCOUNTING

(Post No. 514) Re-advertisement. Salary Scale: £12,777 - £15,716 p.a. (pay award pending).

Applications are invited for the post of Lecturer II/Senior Lecturer in Accounting, to commence as soon as possible.

The School has a very broad range of accounting, financial and business courses. An ability to provide professional advice to students would be a particular advantage.

Application forms and further details are available from the Personnel Office, Leicester Polytechnic, 100 Victoria Road, Leicester LE1 7RH. Tel: 0533 551501. Ext. 2303. (33001)

Preston Polytechnic

LECTURER II (TEMP)

Applications are invited for the above post in Social Policy and Administration. The temporary contract will be for the 1984-85 academic year.

Salary Scale: £7,215 to £11,568 (Award Pending).

Application forms and further details are available from the Personnel Office, Preston Polytechnic, 100 Victoria Road, Preston PR1 2TD. Tel: (0772) 660077 quoting reference A77/84/85/18.

Closing date for receipt of completed applications: 11th September 1984.

The Polytechnic is being renamed Lancashire Polytechnic from September 1985.

Middlesex Polytechnic

MIDDLESEX BUSINESS SCHOOL

Professor/Head of School of Accounting and Finance

GRADE VI HEAD OF DEPARTMENT: £17,277 - £18,972 p.a. inc

Applications are invited for the post of Head of School of Accounting and Finance, from candidates with:

- teaching experience in higher education
- a record of achievement in research and consultancy
- appropriate experience of academic administration
- preferably some experience in industry or commerce

Demonstrable potential to lead a team of accounting staff is expected, together with the ability to make an effective contribution to academic developments through teaching, research and consultancy.

Write quoting ref A469B for further details and an application form, postable by 21 September 1984, to the Personnel Office, Middlesex Polytechnic, 114 Chase Side, London N14 5PN. Closing date 17 September 1984.

Colleges and Institutes of Higher Education

the College of Ripon & York St John

LECTURER GRADE II/SENIOR LECTURER IN ART (£7,215-£13,443) (under review)

Applications are invited from suitably qualified and experienced candidates with successful and recent teaching experience in Art, Craft and Design who have taken a significant role in aspects of curriculum development in art at both Primary and/or Secondary level.

The person appointed will be expected to make a substantial contribution to the B.Ed. Honours as well as the B.A./B.Sc. Honours degree programme with students reading Art as their nominated area of study. A specialist strength in Pottery and related three dimensional studies is required together with a specific interest in the teaching of art in Primary education and the training of teachers.

The successful candidate will be expected to initiate development within his or her own specialism and contribute to the development of art, craft and design within the College.

The appointment is for January 1985. Further details and form of application available from The Principal, College of Ripon and York St John, Lord Mayor's Walk, York YO3 7EX, to whom completed forms should be returned to arrive not later than Monday 24th September, 1984.

(18729)

in Craft, Design and Technology (Technology)

Applications are invited for the above post. Candidates should be well qualified graduates and Qualified Teacher Status is desirable. Candidates should have appropriate experience at a high level.

The person appointed will be responsible for the development of technology in a design context and will have experience of Schools' Technology will normally be expected. A familiarity with aspects of Information Technology will be a distinct advantage.

The successful candidate will be expected to contribute to both teacher education and diversified courses at degree level and represents a commitment to the strengthening and development of Crafts, Design and Technology in the College.</



Western Australian Institute of Technology

School of Computing and Quantitative Studies

The School of Computing and Quantitative Studies is one of five Schools within the Division of Business and Administration. The Division uses a wide range of computing equipment including an IBM 3031, a DEC System 10, PDP11 minicomputers and microcomputers. An extensive range of software packages is available and the Division is continually enhancing its software facilities.

The School provides an applied computing orientation to students pursuing, or wishing to pursue, a career in the DP industry. The programmes offered are: Bachelor of Business (Information Processing) Bachelor of Business (Information Systems); Postgraduate Diploma/Master of Business (Business Systems); Postgraduate Diploma/Master of Information Systems. A Graduate Diploma in Business Computing is to be introduced in 1985.

Tenured Senior Lecturer INFORMATION SYSTEMS

The appointee will be involved in the co-ordination of the School's undergraduate Information Systems programmes which include the impact of information technology on organisations, information analysis, systems analysis and design, management information systems, DP management and the use of packaged software including fourth generation languages.

The appointee will also be responsible for the co-ordination of a second year unit in Information Systems for Accounting students; expected to develop and teach course units and play an active role in planning the on-going development of the School's programmes.

Relevant teaching and industrial/business experience are essential and appropriate postgraduate qualifications preferred. (Ref 687).

Lecturers

QUANTITATIVE METHODS/ INFORMATION SYSTEMS

(One Tenured, Two Limited Term Appointment)

Teach and develop units in Quantitative Methods/Information Systems for undergraduate and/or postgraduate students. Involvement would be in one or more of the areas of QM/IS, eg Business Mathematics and Statistics. Candidates must have a degree with honours in one of the above areas, experience of the application of these techniques and a knowledge of current software developments are all highly desirable. (Ref 689).

Salary Range: Senior Lecturer/Research Fellow \$33,331 - \$38,847; Lecturer \$24,840 - \$32,634. Senior Tutor \$24,411 - \$24,626; appointment.

Qualifications: Candidates with lesser qualifications than stated above will be considered at other than the advertised level of appointment.

Limited Term Appointments are available initially for one to three years and to an eventual maximum of five years. Conditions include leave for appointee and family plus assistance with removal expenses. Superannuation is available for staff with tenure. Return fares are provided for staff appointed on a limited term.

Applications: Details including the names and addresses of three referees should be submitted in duplicate not later than 28 September to the Migration Officer, Western Australia House, 115 Strand, London WC2R 0AA, from whom further information may be obtained. When applying please quote Ref. No. and Code HES.

THE LADY DAVIS FELLOWSHIP TRUST P.O. Box 1255 Jerusalem 91904, Israel

Fellowships for 1985-86

at the Hebrew University of Jerusalem or the Technion-Israel Institute of Technology, Haifa

GRADUATE AND POST-DOCTORAL FELLOWSHIPS

ELIGIBILITY: Lady Davis Fellows are selected on the basis of demonstrated excellence in their studies, promise of distinction in their chosen fields of specialisation and qualities of mind, intellect and character.

APPLICATION INFORMATION: Graduate candidates may apply during their senior undergraduate year or after they have undertaken study in a graduate school. Post-doctoral candidates may apply not later than 3 years after completion of their doctoral dissertation. The Fellowship is tenable for one year but may be granted for another year. The grant covers travel, tuition fees and reasonable living expenses.

VISITING PROFESSORSHIPS

are intended for candidates with the rank of Full or Associate Professor at their own institution. They are tenable from one trimester (or semester) to a full academic year. DEADLINE: Completed forms in all categories must reach Jerusalem not later than December 1, 1984. Late applications will not be considered. Candidates, including Israelis abroad, may obtain application forms at the above address. Please indicate category of Fellowship required.

Senior Research Fellow (Waiting Appointment)

ON-LINE APPLICATIONS DEVELOPMENT

The School has received a number of grants to fund a position to assist develop courses and research programs in on-line applications at undergraduate and postgraduate levels. A proposed area of study is the development of computerised information systems in a commercial environment using state-of-the-art software.

Applicants should have in-depth experience in one or more of the following areas: data communications and networks; transaction processing systems; database management systems, fourth generation languages.

The IBM 3031 operates under MVS with ACF/VTAM and IMS DB/DC. Significant practical experience particularly in this type of environment is required, since a major role will be staff development, assisting colleagues develop the School's educational and research programs using the IBM computer. A limited amount of teaching may also be required.

Industrial or business experience is essential; relevant postgraduate qualifications and experience of teaching and research at this level are highly desirable. It is anticipated that the appointment will be for one year full-time but a shorter, longer appointment could be negotiated. (Ref 688).

Lecturers

PROGRAM DESIGN

(One Tenured, One Limited Term Appointment) Experienced computer professionals are required to lecture and assist in the formulation of courses in on-line application development at undergraduate and postgraduate levels. Candidates must have a degree with honours in one of the above areas, experience of the application of these techniques and a knowledge of current software developments are all highly desirable. (Ref 690).

Relevant qualifications (preferably a higher degree) and experience are essential. Teaching or research experience would be an advantage. (Ref 700).

THE HEBREW UNIVERSITY OF JERUSALEM Jerusalem Israel

The Hebrew University of Jerusalem offers a small number of:

POST-DOCTORAL FELLOWSHIPS

for the 1985-86 academic year in the Humanities, Social Sciences, Natural Sciences, Agriculture and Medicine.

Candidates may apply at any stage of their professional career (not later than 3 years after completion of their doctoral dissertation) to P.O. Box 1255, Jerusalem 91904, Israel.

Completed application forms must be returned by December 1, 1984. (020447)

UNIVERSITY OF TRANSKEI

Applications are invited from suitably qualified persons regardless of race, sex, colour or national origin for appointment to the following post:

SENIOR LECTURER/ LECTURER: POLITICAL STUDIES

Minimum qualifications: Applicants must have a MA degree or equivalent qualification for the Senior Lectureship. A record of research and publication will be an advantage.

The department offers courses in Political Science, Africa Politics and International Relations. Applicants should indicate in which field they have an interest.

Closing date for applications: 19th September, 1984. Assumption of duty: 1st January, 1985.

Salary Scales:
Senior Lecturer R16,557 x 936-24,045 + 12%
Lecturer R12,657 x 780-16,557 x 936-22,173 + 12%

Additional benefits include payment of removal of furniture and personal effects, assistance towards University education of children, accident insurance cover, study leave, leave gratuity on retirement and membership of Group Insurance, Pension and Medical Schemes.

Applications should be sent to The Personnel Officer, University of Transkei, Private Bag X5092, Umtata, Republic of Transkei, Southern Africa. Applicants must furnish their telephone number(s) and a detailed curriculum vitae as well as full postal addresses of at least three (3) referees. (10669)

Applications are invited until 28 September 1984 from suitably qualified persons, regardless of sex, race, colour or national origin, for appointment to the following position:

Director of Public Relations:

Office of the Vice-Chancellor

The candidate should hold a degree plus extensive experience in Public Relations or media or both. The candidate is expected to plan, initiate, co-ordinate and direct the University's public relations programme and its many aspects, both internally and externally, as related to the general public, special groups of citizens, institutions, embassies, schools, staff, students and convocation.

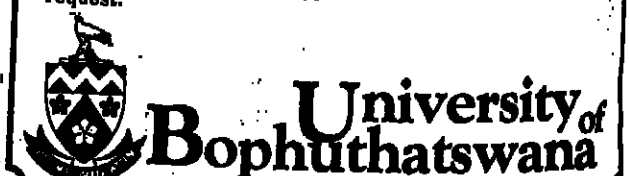
Salary: Director: R28 109 x 936 - 24 045 x 1 035 - 30 255

A pensionable allowance of 12 percent is also payable. The starting notch will be determined according to the qualifications and experience of the successful applicant.

Benefits for full-time permanent and contract staff include pension, contract benefits and medical aid fund membership, an annual 18th cheque bonus, generous vacation and long leave privileges, subsidised university education, housing, removal and travel expenses.

Applications with a detailed CV and the names and full addresses of three professional referees should be sent to the Assistant Registrar (Administration), University of Bophuthatswana, Private Bag X2046, Mafikeng 8870, Southern Africa.

Detailed information and application forms are obtainable on request.



UNIVERSITY OF BOTSWANA

Invites applications for post of

DIRECTOR INSTITUTE OF ADULT EDUCATION

Applicants should hold a minimum of Masters Degree but preferably PhD Degree in Adult Education or any relevant area of study.

Substantial experience in the field of Adult Education and previous working experience in a developing country will be additional advantage.

Priority is to consolidate the Institutes present focus on Training, Adult Education, Extension and Research activities together with the future development of distance Teaching and Labour Education. The post is available at Senior Lecturer/Professorial level. Previous applicants should indicate that they are still interested in being considered.

Scale: Senior Lecturer P18004-P18072, Professor P18072-P18092. Closing date: 10th October 1984. (020460)



ISLAMIC REPUBLIC OF IRAN
MINISTRY OF PETROLEUM

NOTICE

The Abadan Institute of Technology (A.I.T.) announces vacancies in the departments of Science and Engineering and invites applications for several faculty positions, effective 1984-85 academic year.

Candidates must be of Iranian National and must have distinguished academic and scholarly records, and the highest concern for teaching at college level.

Their principal contributions will be to teach part of a B.Sc. Curriculum in order to assist the school to maintain and increase its excellence as well as to meet the challenges proposed to engineering fields in modern times, in general, and to Iran's post revolutionary era, in particular.

The applications should include information relating to the following minimal qualifications:

1. Earned M.Sc. or Ph.D. degree and related experience in Chemical, Mechanical, Electrical, Petroleum Engineering, Computer Science or any major field in science (Mathematics, Physics, Chemistry, Geology). M.Sc. and Ph.D. 1984-85 prospective graduates are also welcome to apply for the aforementioned positions.
2. Teaching experience at the undergraduate level and direction of research or other related scholarly activities culminating in a college or professional degree.

Salary and ranks will be commensurate with degree, experience, and training. Resumes, letters of recommendation, and evidence of teaching capacity are desired.

Please forward application letters, recommendations letters, and University credentials to:

Recruitment Committee
Office of the President
Abadan Institute of Technology
N.I.O.C.
Ahwaz, Iran.



The University of Western Ontario
Invites Nominations and Applications
for the Position of

PRESIDENT & VICE-CHANCELLOR

The President and Vice-Chancellor is the chief executive officer of the University and Chairman of the Senate.

The term of office will commence on or before July 1, 1985. The appointee will be a Canadian citizen. Written applications or nominations should be accompanied by a resume of qualifications and will be received until November 1, 1984, by:

Mr. W.A. Jenkins, Chairman, Presidential Selection Committee, Room 290, Stevenson-Lawson Building, The University of Western Ontario, London, Ontario, Canada N6A 5B8.

An Equal Opportunity Employer (020435)

PLEASE MENTION
THE T.H.E.S.
WHEN REPLYING
TO
ADVERTISEMENTS

The University of Melbourne CHAIR OF GEOGRAPHY

(Re-Advised with New Closing Date)
Applications are invited from scholars of distinction for appointment to the Chair of Geography which is currently vacant. It is expected that the holder will have a broad interest in the whole subject and will play an important role in the development and integration of undergraduate courses and of the Department generally.

CHAIR OF ITALIAN

(Re-Advised with New Salary and Closing Date)
Applications are invited from scholars of distinction in Italian literature and language for appointment to the Chair of Italian.

Salary: A\$82,000 per annum.
Further information, including details of research and teaching undertaken in the Department, is available from the Registrar, University of Melbourne, Parkville, Victoria 3010, Australia, or from the Secretary General, Association of Commonwealth Universities (Agu), 28 Gordon Square, London WC1H 0PF. Applications close on 18 November 1984. (020438)

The Ohio State University
POSTDOCTORAL FELLOWSHIP IN METALLURGY/ELECTRON MICROSCOPY
The Department of Metallurgy and Electron Microscopy, The Ohio State University, is seeking a Postdoctoral Fellow to assist in the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and properties. The Fellow will be responsible for the characterization of defect structures in materials, with particular emphasis on interfacial structure and properties. The Fellow will also be responsible for the study of the relationship between microstructure and